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THE EDITOR'S PAGE

Research Communication: Goals and Processes

In September 1987 the *Report of the Task Force on Technology and Research Communication*, established by the Social Sciences and Humanities Research Council three years earlier, was released. The report affirms four interrelated goals for the process of scholarly research communication: availability, authentication, accessibility, and preservation. *Availability* provides for the content of research to be in the public realm so it may be seen and used by others. *Authentication* refers to the trustworthiness of the research and the means employed to ensure quality. *Accessibility* means making research information easy to obtain at an affordable price. *Preservation* aims at ensuring the survival of accumulated information and knowledge.

The task force views the traditional system of research communication as being under severe pressure because of the growth in research output, the increasing level of specialization in research output, and the rising costs of research output coupled with increasing financial constraints imposed on purchases by users and libraries. The traditional system is also perceived as being influenced by *complementary* applications of technology intended to make it more efficient (e.g., word processing, computerized data bases) and by *transformative* applications that fundamentally change the process (e.g., storage disks; conferencing via audio, video, or computer networks).

While the adoption of new technology has alleviated some of the pressures acting on the process of research communication, the task force concludes that none of the four goals is being completely met at the present time. There is no disputing the validity of this conclusion in the field of education. Indeed a much harsher judgment could be applied to our achievement of the goals of availability and accessibility. Much of the research in education is undertaken by those seeking graduate degrees. Little of it is presented for public scrutiny, particularly if the research is in the qualitative or naturalistic mode which is not easily interpreted in the succinct fashion demanded by the traditional system of research communication. Although the dogged researcher can gain access to thesis research and the "grey literature" (documents produced outside the normal channels of publication and distribution), those engaged in professional practice remain largely unaware of their existence. Moreover, the increasing specialization in research tends to make the products that practitioners do encounter appear unrelated to the realities of schooling.

That a vast number of potential users of research in many occupations are being bypassed or forgotten by existing communications processes was virtually disregarded by the task force. This oversight is not surprising considering its sponsor and composition. But those who do research in education dare not ignore this phenomenon. How can our research be a potent source of enlightenment or change if most of those who work in the educational enterprise never learn about it?

W.H.W.

C. HARRY PAYNE

Northern Territory Education Department (Australia)

Parents and Control of Elementary School Principal Work Behavior

This article reports on an exploratory and descriptive study which investigated the influence exerted by parents, normally the most important environmental control, on elementary schools and their principals in a large Catholic school district in Alberta. The perceptions of trustees, senior administrators, principals, and teachers were gathered through a questionnaire and semistructured interviews and available documentation examined. The principalship's main constituencies are superordinates, staff, and parents/students, and a key function of the principalship is to establish an appropriate balance among influences from these three sources. Since the principal can determine what happens in a school, the tripartite relationship of principal, superordinates, and parents was of particular interest. Parents exercise a much greater influence over principals' work behavior, and consequently schools, than is generally recognized. As schools are given and assume greater autonomy, parents can function as a control over principal behavior with local accountability replacing hierarchical control. This development may still serve the interests of the school system if it is appropriately managed.

The relationship between parents and principals has not been thoroughly explored (Morris, Crowson, Hurwitz, & Porter-Gehrie, 1984). Nor have the attitudes of principals' superordinates toward this relationship been investigated in any depth. Yet some studies have indicated that parents are an important determinant of principal work behavior and that because their influence is fostered by the school district it may constitute, in effect, part of the school district's principal control system. The study reported here (Payne, 1987) aimed to determine whether parental influence is a significant control over principal behavior and whether it is part of the district's principal control system. Consequently, the focus of interest was some aspects of the tripartite relationship among principals, parents, and superordinates.

In view of the established importance of principals for affecting what happens in schools (Rossmiller, 1986a, 1986b), it is desirable to know as much as possible about the determinants of principal work behavior. A recurring theme in the literature is principal leadership and the key role of the principal in ensuring the existence of those characteristics in a school which have been consistently associated with

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effective schooling. Among these characteristics, three which seem pertinent to the tripartite relationships are: school site autonomy; involved, informed, and supportive parents; and strong school system support (Purkey & Smith, 1983). Interestingly, these bear considerable resemblance to the autonomy and entrepreneurship, close customer relations, and simultaneous loose-tight organizational properties with control through key values, which Peters and Waterman (1984) identified as characteristic of excellent companies.

Parental influence rather than the more common *community* was selected for study because some research (Grassie, 1979a, 1979b; Morris et al., 1981) has revealed that parents are by far the most important environmental constituency for principals and are surpassed in their importance for, and influence on, principals only by superordinates and school staff. Grassie's study (1979a) of the influence principals attributed to many nonschool sources demonstrated clearly that superordinates and parents were the major influences on principal work behavior.

The notion of parental influence as part of the district's principal control system comes from Peterson's work (1983, 1984). He reintroduced in the literature of educational administration the historically valuable but currently little used concept of control to explain his findings that districts use a web of interdependent mechanisms in order to constrain and channel principal behavior. The web of multiple mechanisms is necessary in order (a) to adapt the pattern to each principal's unique circumstances, (b) to allow the principal to resolve often dilemmatic expectations, and (c) to facilitate establishment of that balance of influences on the school most appropriate to its circumstances. One of the mechanisms Peterson identified and labeled an environmental control was the requirement by the district that principals have community support. He reasoned that this was a district control because the district made clear its expectations and did various things which, directly or indirectly, ensured that principals were sensitive to community influence. Duke and Stiggins (1985) have elaborated on this notion with regard to principal supervision by pointing out that those who have found little supervision of principals may have failed to recognize the influence of "supervisory visits by nonhierarchical influentials" responsible for "extraorganizational" monitoring of principal behavior.

These indications in the literature suggested first, that parental influence on principals may be greater than is generally recognized. Practice and the reality of the principal's situation may have developed characteristics which are not adequately reflected in formal school system policies or in the literature of schools administration. Second, there is the suggestion that school systems' promotion of the influence of parents helps to ensure that principals and schools pursue system goals irrespective of whether there is a deliberate strategy to this effect. This latter point assumes increased significance in light of the consistent trend to shift decision making power to the school level (Ewanyshyn, 1986) and the growing evidence for both the political and educational desirability of doing so. Ensuring accountability to parents at the local level may compensate for the school system's difficulties in ensuring direct school accountability to the district. Loose coupling theory (Meyer & Rowan, 1977; Weick, 1976) and findings which illustrate the scope for discretionary decision making in the principalship (Brieschke, 1985; Crowson & Porter-Gehrie, 1980; Morris, et al., 1981) emphasize the ineffectualness of direct principal control and the need for alternative means of control if school systems are to discharge their own responsibilities for coordination and strategic direction of schools.

An extensive review of the literature and some preliminary interviews indicated that exploratory and descriptive research was most appropriate because the tripartite

relationships have been the subject of little empirical research. In addition, the existence of a voluminous literature with some relation to the problem, the absence of any widely accepted theory, the complexity of the factors involved, and growing acknowledgment of the inadequacies of any single perspective on organizations all indicated that this exploratory research should make use of any and all available conceptual lenses.

Major questions or aspects that seemed pertinent to the problem involved (a) the significance of parental influence for the principal, (b) the significance of the principal as a medium for parental influence on the school, (c) the encouragement and facilitation of parental influence on the principal by the school system and (d) the means through which parents exercised influence.

Data Collection

The research involved an in-depth examination of some aspects of the tripartite relationships in one reasonably large, publicly funded Catholic school system in a provincial capital. As there is some evidence that the relationships may vary with levels of schooling (Firestone & Herriott, 1982a, 1982b), and as most related research has been conducted with elementary schools, this exploratory study was restricted to elementary schools. As people behave according to how they perceive reality, the data for the study were mainly perceptual.

The organizational participants best placed to observe the influence of parents on principals and schools are principals themselves, trustees, senior administrators, and teachers. All elementary principals, trustees, and senior administrators in the district were invited to participate in the study. A purposive sample of teachers was obtained by asking elementary principals to nominate three teachers from their staff who were experienced, likely to respond, and whom they thought would have some views on the problem.

Data were gathered through a questionnaire and semistructured interviews with some supplementation from document analysis. Multiple methods and multiple sources allowed for triangulation. The questionnaire, which was extensively pilot tested and critiqued and progressively refined, contained 30 items common to all respondents, a short section for each category of respondent, and an invitation to make further written comment. The common items asked respondents to rate on a four-point scale (a) the importance of parental influence on principals, teacher, and superordinates, (b) the importance of parental influence in various aspects of school operations, and (c) the importance attached by principals to some matters the literature suggested might be related to the problem. The questionnaire section for each particular group of respondents asked for a few personal details and for responses concerning aspects of parental influence peculiar to the group.

The semistructured interview schedule was constructed to supplement the questionnaire by exploring the bases for questionnaire responses and also raised matters not amenable to the questionnaire technique. It allowed respondents to introduce information they considered relevant. The schedule was pilot tested through preliminary interviews with experienced and knowledgeable educationists in the province and through critical comment from faculty and postgraduate students.

Data were collected from 42 of the 46 elementary schools early in the 1986/87 school year. As much personal contact as possible was made with respondents with, for example, initial contact by personally addressed letter and follow-up phone call. The overall return rate for questionnaires was nearly 90% with six usable returns from trustees, nine from senior administrators, 42 from principals, and 104 from

teachers. Detailed examination detected no bias in sources of returns. Seven trustees, nine senior administrators, 13 principals, and nine teachers were interviewed for periods averaging one and a half hours. A combination of random and purposive selection ensured principal and teacher interviewees tended to be representative of elementary schools and their staff in the district. Interviewees had the opportunity to correct and amend their interview records.

Data Analysis

Analysis of the questionnaire data was primarily through visual inspection of frequency counts and percentage frequencies. Interview responses were categorized according to specific questions asked and through themes which emerged from the data itself. Some limited content analysis of district documents established what was emphasized by the district in its policies and published materials. The main use of documents was to ascertain the official position for comparison with the perceived position.

Two analytic frameworks were developed from preliminary investigations, suggestions in the literature, and indications in the data in order to organize the full analysis of the data. They illustrate the complexity of the circumstances in which parents serve as a control over principal behavior. Figure 1 brings together, in general terms, those aspects of the tripartite relationship which proved to be of most interest in the study.

The figure is a simplification of a very complex world and highlights those aspects of most importance for the study. The principal (and school) are represented in the central box and surrounded by a larger box representing an important aspect of the environment which partly shapes, and hence controls, principal behavior. There are major omissions in this depiction. For example, there is reciprocal interaction in which principals may themselves shape, at least to some extent, the nature of the school's environment, including parental or superordinate influence. Similarly, parents may at times be part of the school, rather than its environment; or superordinates may be at once part of the same organization as the school or viewed as an environmental influence on the school.

Parental influence is only one aspect of the many, often interacting and interdependent environments that influence principal behavior, and this is illustrated by the all-encompassing box of nested environmental layers drawing attention to, for example, the provincial and societal contexts.

In the study the most pertinent aspects of parental influence on school that emerged from the data were its magnitude, growth, and characteristics. The existence, significance, and magnitude of parental influence are indicated by its perceived effects on principal behavior and school activities. The growth of parental influence in recent years could help explain the lack of recognition of its significance in the literature. In looking at characteristics or the nature of parental influence, the researcher was concerned with the ways in which the influence operates, such as whether it affects some areas of school operations more than others, or whether it serves to define a domain in which schools and principals exercise discretion, rather than affecting specific decisions. A possibly fruitful approach in understanding parental influence lies in examination of matters in which differences occur between schools and parents.

The box representing the school has a number of features. At the top is principal behavior because evidence for parental influence can be derived from that behavior and its importance established if the principal is the main conduit for influence on the

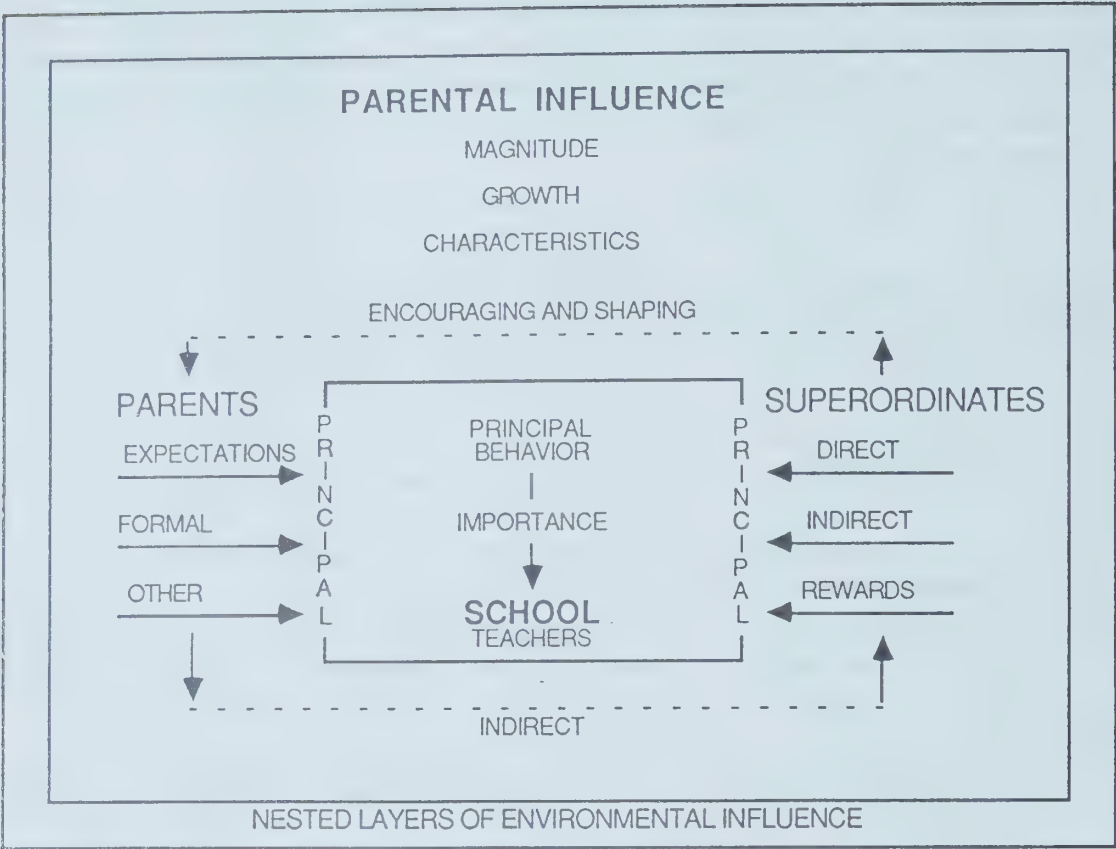


Figure 1: Analytical Framework for Parental Influence

school. Manifestations in principal behavior of parental influence are found in principals' propensity to demonstrate they have parent support, their responsiveness and sensitivity to parents, the importance they attach to resolving differences with parents, their handling of complaints, the extent to which they are constrained by parents, and their activities in buffering teachers and superintendents against parents. The significance for the school of parental influence on the principal depends on the principal's importance for the school—whether principal behavior affects the important activities of the school. An important associated consideration is the discretion or autonomy the principal has since this determines the principal's freedom to respond to, to influence, and to make changes in the school. Teachers are specifically identified since their work constitutes most of the core activities of the school. The significance of parental influence can be assessed by its effects on teachers, whether exerted directly, or indirectly through the principal. The influence may be manifested in teacher responsiveness to parents or demonstrated by parent involvement in selection, evaluation, transfer, and disciplining of teachers. A major omission, for simplification, is any reference to students. One feature of the school box is that the sides facing both parents and superordinates are made by the word "principal" in order to emphasize that influence on the school from both sources is largely mediated by the principal who may determine the reality of these influences for the school. The principal is positioned in this key, middle role, not only between the school (teachers) and the two sources of influence, but also between parents and superordinates.

The depiction of parents illustrates their influence on the principal and how it is exercised. If parents influence principals and schools, their expectations are important for principals and teachers, particularly if principals feel it necessary to have parents' support. The influence may be exerted formally through mechanisms designed for the purpose, such as advisory, consultative or governing committees, or meetings. There are many other direct and indirect ways in which influence is conveyed. Direct contact, such as in complaining, is one, but also, as the data revealed, indirect means such as informal "chats" are important, as is the presence in the school of parents engaged in various activities. The dotted line from parents to superordinates indicates both that parents may influence the principal and school through superordinates and also that they may enhance the influence they have on schools because of the influence they have with superordinates on matters of importance to principals. Examples of parents influencing through superordinates are when they take complaints to central office or trustees, make submissions to the board, petition to force action about an incompetent teacher, vote for trustees who will pursue particular policies, and use their organizations to pressure the district about policy. Examples of their influence being enhanced may be found in principals' believing that information from parents is used by superintendents in evaluating principals and in the allocation of the rewards available in the system.

Particular matters concerning parents emerged as significant from the data. As expected, some parents were found to be more influential than others. While all parents may have the potential to be influential, particularly if the school exceeds the bounds of the acceptable, only a proportion of parents are active in exerting influence under normal circumstances. More influential parents tend to have certain characteristics. Two characteristics, in particular, merited closer examination—socioeconomic status and membership of special groups such as those supporting the teaching of a particular language. Consideration of the perceived efficacy of policies promoting parental influence involved examination of parent committees associated with schools and of the implementation of provincial policies promoting parent involvement and participation in early childhood education and community schools.

Figure 1 shows superordinates (defined as anyone ranking above principals in the school system and including trustees) acting both directly and indirectly to sensitize principals to parental influence. A particularly significant example of how this occurs can be seen in the reward system of the school district. Direct means of encouraging responsiveness to parents included explicit policies and exhortation. An example of indirect promotion of parental influence is the attention given by superordinates to parental complaints—the seriousness and urgency with which they are handled conveys a message to the principal, as does referral to the principal of parents with problems. The reward system, which is generally structured by superordinates, can facilitate parental influence if benefits depend on demonstrating the capacity to work with parents or if principals and teachers believe that parents have a role in determining the benefits they receive. Parents may influence the selection, evaluation, promotion, and transfer of principals and teachers, the evaluation a school receives, or the future of a principal who loses their support. Superordinates may also encourage parents to exert influence. They may urge them to become involved, publicize their right to participate, build expectations for participation and establish mechanisms through which parents may participate. Less directly, through encouragement of a parent presence in the school in a variety of capacities such as aides or assistants, they create opportunities for parents to influence. Superordinates may also shape the nature and directions of the influence parents exert on schools by building parent expectations of

the school through promotion of notions of what a good school should be, giving publicity to notable achievements which might be emulated, and making parents aware of district policies and goals.

Figure 2 shows in more detail the three aspects of superordinates' influence on the parent-principal relationship. Superordinates influence the principal to be responsive to parents through the attitudes they convey and through the expectations they make clear. They promote parental influence efforts by raising parent expectations of being able to influence, and by encouraging and providing opportunities for parents to influence. They endeavor to ensure parental influence by their own responsiveness and accessibility to parents, by the manner in which they handle parent complaints, and by ensuring that the rewards available to principals are, in part at least, determined by the principal's parent relations. This figure illustrates the reasons for describing parental influence as a principal behavior control mechanism employed by the school system regardless of whether superordinates explicitly recognize it as such. As a depiction of actual circumstances it does not include related expectations superordinates have that principals will manage parents, controlling and channeling parental influence in the interests of the school and district.

Findings

With regard to the central problem of the study, there was no doubt that organizational participants in the district perceive that parents have a very strong influence on principal behavior and school activities and that this influence is, in effect, a control mechanism for the school district. Using the analytic frameworks to organize the analysis and synthesis, 54 propositions were derived as findings from organizational participants' perceptions and the documents. These propositions, pertinent to the research problem, formed the bases for the following conclusions about parental influence and its function as a principal behavior control mechanism in the district. The major conclusion appears in italics at the beginning of the following sections and is followed by findings which support or elaborate it.

Parents are an environmental control. They strongly influence principal work behavior. Differences between parents and principals are few and when they occur are afforded great importance by principals. Principals are anxious to demonstrate they have parental support, are very responsive to parents, sensitive to their concerns, and try to keep parents satisfied. The influence of parents on principals and schools has increased markedly and probably will continue to do so, particularly as principal responsiveness is encouraged by the district. However, principals also have to accommodate other influences, such as that from superordinates and, in effect, achieve a balance among major constituencies.

The ways in which parents control principal behavior can be conceptualized in terms of a continuum. At one end is a generally unconscious setting and monitoring of the boundaries or thresholds of a zone of discretion or tolerance established for the school. At the other, interventions may concern very specific matters. The former has been recognized in the literature because of easily identifiable cases of parent opposition being aroused when thresholds are crossed. This study highlighted the growing interventionist disposition of parents and the growing acceptance of their right to advise, at a general policy level at least, on any aspect of the school. There is a trend toward their participation in decision making on an increasing range of school matters. However, while they do have influence on specific core teaching and personnel matters, such as staffing arrangements, their right to do so is far from being widely accepted or acknowledged.

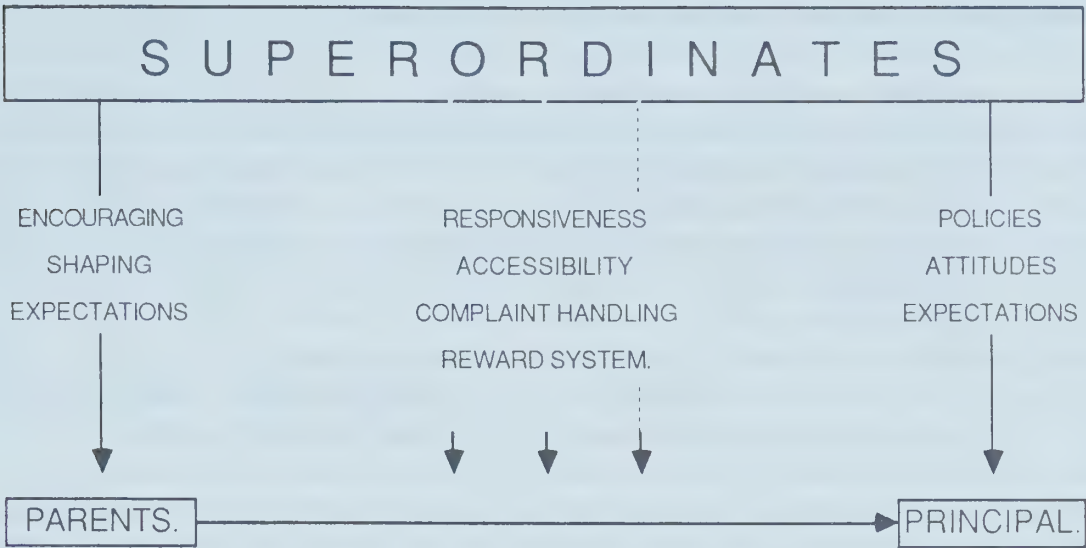


Figure 2: Superordinates and Parental Influence on Principals

How parents influence the school and what they influence are largely the result of their interaction with the principal. The principal can function not only as gatekeeper, allowing influence into the school and channeling it to appropriate activities, but in a more proactive fashion to bring parents to accept and support broadened school discretion and particular initiatives. The principal also has to ensure that parent satisfaction with the school is kept in balance with the satisfaction of other constituents, particularly teachers and superordinates.

The effects of parental influence can be seen in principal behavior and in various aspects of school operations. Principal behavior manifests the influence of parents in the attention principals give to demonstrating they have parent support, avoiding conflict, being responsive, resolving disagreements and keeping parents satisfied. That principals feel under some pressure to be sensitive to parent concerns is illustrated by their efforts to forestall superordinates' involvement in parent problems. Principals also represent parents and ensure staff and superordinates are responsive to their influence. At the same time they endeavor to limit and shape the parental influence to what is acceptable to these groups, particularly in those matters where parents' right to influence is more likely to be disputed.

Teachers are very conscious of parental expectations and of parents' role in school evaluation. Teacher selection and appraisal, particularly when teachers are incompetent or misbehave, are affected by parental influence. Parents believe the principal is the key to what happens in schools and generally direct their influence toward the principal. Teachers and the school are in turn influenced because principals discharge the responsibility they have for the whole school through both formal and informal powers of their office, their skills and the discretion both conferred on and inherent in their position.

Principal discretion is circumscribed by various controls, and some of the more powerful controls may not be the most obvious. Parental influence can be seen in direct pressures on the principal, but less obvious, for example, are the measures the principal takes to monitor the thresholds of acceptability from within the school so

that boundaries are not transgressed and opposition aroused.

Principals, being crucially positioned at the interface of potentially competing constituencies, have to establish a balance among influences. Teachers want to be free to pursue their work with children as professionals and expect the principal to buffer their school's work against parent interference. Superordinates make clear that parents are the principal's responsibility and also their expectation that the principal will both satisfy parents by accommodating their influence and also constrain their influence to approved channels and purposes. Principals carry the major responsibility for ensuring positive district relations with parents and engendering parent support for district objectives and goals.

While being responsive to parents, principals, in order to achieve the balance of influences most beneficial for the school, must also manage parents. Managing parents essentially involves use of communication and leadership skills in order to educate them about the desirability of the school's work. While fostering the power of parents by assisting them to organize, teaching the skills of influence, and removing obstacles to their influence efforts, the principal must also channel their interests. In reconciling leadership of parents with professional objectives, principals may tread a narrow line between participation and manipulation, between accommodation to parent wishes and molding parental influence to the principal's own purposes.

Parental influence is part of the school district's principal control system. Superordinates ensure principal behavior is influenced by parents and this constitutes a major constraint on principal discretion. Principals know they are expected to have parent support, need to keep parents satisfied, and have to be sensitive to parent preferences. The discretion principals are allowed by superordinates is needed in order to achieve a balance of parental influence with other influences in the particular school's circumstances. Superordinates have goals to pursue which are, at least in part, a reflection of their suprasystem's goals (e.g., the province and society) and they utilize parental influence on principals to achieve them. Superordinates' characteristic efforts to avoid conflict can accentuate the influence of parents.

The district reward system promotes principal responsiveness to parents because evaluation of schools, and principal promotion, assessment, and transfer are partially determined by evidence of harmonious parent relationships or absence of conflict, and principals and teachers believe that information from parents plays a significant part in these matters. However, this pressure for responsiveness is tempered by the district's expectation that principals will also manage parents in the interests of the school system.

The school district encourages parents to exert influence on principals by policies and publicity which build parent expectations that they should be able to participate and become involved and the district exhorts them to do so. At the same time the district establishes principal receptivity to parental influence by making clear that principals should have parent support and should satisfy parent concerns in a manner acceptable to the district. Because most central office superordinates' encounters with parents concern their complaints, and because superordinates often have to deal with principal-instigated parent pressure, they may underestimate the influence parents have on principals.

Superordinates tend to allocate responsibility for parents to principals, and professional superordinates do not see their own role as having a significant parent relations component. They can generally rely on parents' having conservative attitudes. But the corollary of district control of principals through parents should be an accompanying effort to mold the influence that parents do exert so that it furthers district

goal attainment. Limited efforts to build parent expectations of what the schools should be are seen in the public lauding of individual school achievements, forums, and information meetings, publicizing of aims and objectives, and written publicity materials.

Principals and teachers try to ensure schools reflect parent preferences partly because they recognize that parents attach great importance to their expectations of schools. While all parents may play a part in establishing and monitoring the zone of tolerance within which schools have discretion, some parents are more active and successful in influencing principals and schools more directly. These parents are generally articulate, better educated, more affluent, and knowledgeable about organizing and the politics of influence. The most successful influence efforts are often those of parents who are committed intellectually, emotionally, and materially to groups pursuing particular objectives such as bilingualism or preservation of ethnic identity and culture.

Parents can influence schools in many ways. Parental influence can be conceptualized in terms of a continuum from a role in establishing and monitoring the space for discretion allowed schools, to specific attempts to influence particular operational matters. There is a trend toward allowing parents an advisory role at the general policy level in *all* school matters and toward specifying an increasing range of matters in which they can participate in decision making. The growing openness of schools and increasing presence of parents on site raises parents' potential to influence because they become better informed and have more opportunities. Formally constituted mechanisms for parental influence, such as advisory committees or councils, are an important means of accommodating parent preferences and channeling influence, particularly where they are encouraged by the principal. Parents affect the career prospects of principals and teachers because they can and do intervene in personnel matters and are seen to be influential in the distribution of rewards.

The principal is the key to parental influence on schools. Parents want to exercise influence through direct contact with the principal of their school. Principals have most contact with parents and are the key to parental influence because of (a) their positioning, (b) parents' perception of their power, (c) their actual power to determine the nature and success of influence efforts directed at the school, (d) their need for parent support, and (e) their role in monitoring school activities to ensure acceptability to parents. It is the principal who has to achieve the balance of influence among the school's major constituencies.

Discussion

A major finding of the study was that trustees, senior administrators, principals, and teachers attribute to parents generally very considerable influence over principals' behavior and school activities, although there is considerable variation in parent activity among schools. The nature of this research calls for caution in generalization, but it seems significant that there were virtually no indications in the data that the situation with regard to parental influence is peculiar to the school system studied. The absence of parent perceptions from the data is the main weakness of the study, but the strength of the influence organizational participants attributed to parents suggests its reality for them.

Parental influence, and the principal's role in relation to it, does not receive much attention in the current literature despite the attention being given to principal leadership as a result of various research strands pointing to the crucial importance of the principal for effective schooling. This accords with the lack of appreciation of the

realities of the principal's work and the shortcomings of research which have been well documented (Allison, 1983; Bridges, 1982; Dill, 1958; Greenfield, 1982; Lortie, 1975; March, 1978; Moore, 1975; Morris et al., 1981, 1982; Murphy, 1986; Tyler, 1983).

It seems that principal and school sensitivity to parental influence may have increased through an incremental process (Boyd, 1978; Lindblom, 1968; March, 1981) which has outstripped recognition either in formal policy or among all except a few students of educational administration. As March wrote, people have beliefs about the environment and their actions in their conventional routine work activities are guided by these beliefs: "Actions taken as a result of beliefs about the environment do, in fact, construct the environment" and, "the discovery of new intentions is a common consequence of intentional behavior" (1981). This study emphasizes the importance of the influence that parents have on principals. Society has changed and the practice of educational administration has changed along with changing values and beliefs in society. This is not surprising in view of education's close association with social beliefs and society's values. Corroboration is in Schwartz's finding (1981) that societal changes have meant that the principal's role has become much more involved with boundary management.

Making of actual policy in implementation, as opposed to the ostensible policy found in formal statements, is well documented in the evidence supporting Lipsky's (1980) theory of street level bureaucracy and studies of the implementation of educational innovations (e.g., Berman & McLaughlin, 1976). The process of creating policy by adapting and manipulating formal policy to meet exigencies involved in getting the job done has been found to be characteristic of principal behavior, particularly of more effective principals (Morris, et al., 1984; Brieschke, 1985). Similarly, Stringham's study (1974) of the making of a provincial education act encountered a significant body of policy which is only recognized when practice is examined because the policy "has arisen through tacit acceptance of practice and is implicit, latent, and unwritten." Both Mann (1976) and Moore (1975) found, in studying the effects on principal behavior of changes toward decentralization in school governance, that they could not conclude that the changes had produced the behavioral effects because it was possible the changes in formal arrangements were simply reflecting the *de facto* situation in governance that had already developed. This accords with Wirt and Kirst's (1982) observation that about the mid-1960s in the United States parent groups began to become something more than the "extension of the school principal's mimeograph machine" that Mann later maintained they were (1975).

If parents are as influential over principal behavior and schools as this study suggests, then academic conceptualizations of school administration and its practice should recognize their influence. The debate about parent participation in school governance is cast in a quite different light when it is recognized that organizational participants already attribute considerable power to parents and generally accept the legitimacy of this role for parents. By building on a realistic assessment of what already exists, proposals for parent participation in governance should win acceptance more readily. Grassie (1979a) made this point following his findings in Australia. Legislatively decreed participation of parents in school governance, such as the recent changes in England and Wales (Edmonds, 1987) and in Victoria, Australia (Chapman & Boyd, 1985) might be seen as responses to what exists rather than a top-down imposition. In Canada the other provinces might move more quickly to emulate the lead given by Quebec, and in the United States acceptance of the parents' role might spread more quickly than it has to date. In view of the importance of parent involvement and participation for effective schooling, such moves should be treated as urgent.

The conclusions of this study add weight to the argument that the principal's role has not been adequately described in the literature and that principal preparation and improvement programs may be missing their mark to some extent. As Morris et al. (1984) pointed out, the important constituencies or influences for the principalship are superordinates in the school system, teachers, and parents. Grassie (1979a) identified parents as by far the most important environmental influence. A valid description of principals' work should devote major attention to interaction with parents and to the responsibility of the principal for establishing a balance among the internal teacher constituency, the superordinate school system constituency, and the major client group. The idea that achievement of balance is a major aspect of principals' work is not new since over 40 years ago Mort (Griffith, 1985), in the first major treatise on administrative theory in schools administration, stressed the need for the principal to exercise balanced judgment in order to resolve the contradictions in the list of principles he enunciated for good administration.

With regard to parents, principals have to achieve a balance which allows parents sufficient influence to keep them satisfied but not so much as to cause dissatisfaction among staff and superordinates because their own influence is correspondingly weakened or because of perceived deleterious effects on the work of the school. The balancing process includes being sensitive to parent preferences, but also providing leadership and educating parents in order to gain acceptance for the educationally desirable without manipulating them. Litwak and Meyer (1974) developed a balance theory based on the premise that school and home have to be close enough to coordinate their activities, but if they become too close they can destroy each other because of their differing value systems. While the latter part of the premise seems to overstate the case, particularly as the value systems of home and school have tended to come closer together, there can be little argument with the first part of the premise which, stated in different terminology, calls for "a balanced distance . . . for maximum education advantage" (p. 53) or some midpoint close enough to be mutually supportive but not so close as to impair professional performance.

Similarly, Mann (1976) while arguing for a more representational (or delegate) orientation in principals to redress the domination of the trustee orientation, concludes (p. 130) that principals need sufficient discretion to achieve a balance suitable for their particular circumstances. Bidwell (1965) was conscious of the need for parent support while maintaining sufficient distance to maintain the school's authority and discretion and wrote of reconciling responsiveness with the need to prevent client demand from defining client welfare. Morris et al. (1981) found an understanding in schools that parent involvement was to be kept in balance because of its potential for destabilizing the school. Goldring (1986) has recently published evidence that principals seek a balance. Where parents were eager to participate, principals had more negative attitudes toward them, while principals whose parents were unresponsive reported greater engagement with them in order to promote their participation.

With regard to the other two primary constituencies, the principal also has to establish a balance that promotes the interests of the school and does not alienate them. Teachers have to be allowed sufficient autonomy and influence to satisfy them and promote the best performance of duties while being sufficiently controlled or led in order to prevent goal displacement and excessive "unofficial benefits," slackness, or opposition (Crow, 1984). The principal must ensure parents are satisfied with teacher responsiveness to them while also ensuring teacher expectations for buffering against undue parent interference are met. Superordinates have to be allowed sufficient

influence to satisfy their responsibilities but not so much as to threaten the autonomy the principal needs for maximizing achievement of the school's goals in its individual circumstances (Crow, 1984). As the school system's most important link to parents, the principal has to strike a balance between representing parents (and teachers) to the system and promoting the system's interests with parents; and between responsiveness to parents while at the same time buffering superordinates and staff against unwanted parental influence.

Crucial determinants of the appropriate balance among the primary constituencies are the objectives of the school and the individual principal's dispositions and capacities. Thus Hallinger and Murphy (1986) report findings in contrast to Goldring. Their schools with higher socioeconomic clientele were more open to parents and the principals encouraged parental influence, while principals with a lower socioeconomic clientele shut out the parents and did little to involve them. The schools they studied were effective schools in which the appropriate balance of parental influence was determined by an overriding imperative of achievement in basic skills. The principal has also to strike a balance with which she or he can live, that is, one attuned to the principal's own dispositions and abilities. As the key agent in achieving and maintaining the balance, the principal must be comfortable with it in operation. The principal should adopt an administrative style which achieves the desired balance of primary constituency influences according to the circumstances and his or her own qualities—a contingency approach. Thus Peterson (1983) found, for example, that principals from schools with a more assertive higher socioeconomic clientele were more autonomous. Willower (1982) makes the point that observation studies showing principals spending only 5 or 10 percent of their time on environment matters might indicate nothing more than a placid situation in which community and superordinate expectations are easily met. Summerfield (1971) developed the "rule of best fit" from his findings—the principal's political style has to match the neighborhood.

The major balance to be achieved by the principal is among teachers, superordinates, and parents. The chief criterion in achieving the balance should be what best facilitates achievement of the school's goals (assuming those goals embody the best interests of the students). The principal should adopt the administrative style most conducive to achievement of this balance but in doing so will be circumscribed by his or her own dispositions and abilities.

Various societal forces, trends in organizational practice, the reality of schools as relatively autonomous subunits, and the findings of research on effective schooling all indicate that discretion at the school level should be increased. As the research of Ewanyshyn (1986) demonstrates, in Alberta there has been a continuing shift of power to the principalship. In the United States Ornstein (1980) has monitored the continuing decentralization of educational administration and the National Governors' Association is promoting greater school site autonomy (Lamm, 1986). In England and Wales the long standing commitment to building the individual identity of school has recently been reinforced by further legislative enactments incorporating the recommendations of the 1984 green paper (HMSO, 1984). In Australia the various states have been moving to allow greater school autonomy with Victoria leading the way (Chapman & Boyd, 1985). Often moves to build school autonomy are accompanied by efforts to involve parents or the local community and teachers in school governance. This can enhance school autonomy even further because the school community can be a considerable power base. But involving the school community in governance means that, along with power, accountability is also devolved to the school level. In this light, the growing influence of parents on the principal and schools can be seen as

part of a process of evolving checks and balances.

For the school system, there is a dilemma. While the system must recognize pressures for school autonomy and greater principal discretion, particularly as there are educational advantages, it also has its own responsibilities, often legislatively mandated, to discharge. These responsibilities involve ensuring that schools pursue school system goals and objectives and the coordination of school activities and administration where there is advantage to schools overall or in pursuit of overriding societal goals such as equity. In simple terms the school system needs to promote school independence while ensuring schools do as required.

The school system resolves the dilemma with two strategies. The principal is expected to manage the potential power given to the school community (mainly parents and teachers) in the interests of the school system. At the same time, by insisting on principal responsiveness to parents and promoting parent participation, the school system establishes an effective control on the principal's behavior through local accountability. The influence of parents can generally be expected to be conservatively oriented and thus a constraint for principals. Where the school system needs to move schools in desired directions, it can do so not only by bringing pressure to bear directly on principals who then have the responsibility of leading parents, but also by educating parents so that their influence on principals and schools is in the desired direction. That is, parent beliefs and attitudes can be fostered with a view to their being translated into parent expectations of the school.

Conclusion

The research reported in this article clearly demonstrated, for the district examined, the considerable influence that the school's parents have on elementary principal work behavior and, through the principals, on school operations. This influence can be viewed as a control mechanism forming part of the web of mechanisms which the district uses to control schools through the behavior of principals. It is part of the district control system because the system fosters the susceptibility of principals to parental influence in a number of ways.

While there must be great caution in generalizing the findings, they do suggest that parents are a major influence on principals and schools, ranking behind only superordinates and staff in strength of influence. Any adequate account of schools as organizations, and of principals' work, should recognize this. These three sources of influence are the principal's major constituencies and the task for the principal, in leading an effective school, must be to establish an appropriate balance among these interests by creating a community of interest. The school district, in order to meet its responsibilities for setting directions for, and coordinating, schools must be able to control principal behavior. In view of the growing autonomy of school communities and expectations for principal leadership, it can best do so through indirect means such as facilitating parental influence on principals. It can ensure that this influence serves the school system's purposes by creating a climate of expectations for schools among all concerned.

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Characteristics of Study Notes Prepared by Elementary School Children: Relevancy and Efficiency

The characteristics of study notes prepared by children were examined. Grades 4 and 8 students read prose passages and prepared study notes for a subsequent test in which they would be asked to recall four different attributes of different kinds of bears. In general, students' notes at both grade levels contained more task relevant than task irrelevant information. However, only 35% of the students even at grade 8 recorded task relevant information to the exclusion of irrelevant information (selective note taking); 40% of the grade 8 students copied both relevant and irrelevant information to the same degree. Grade 4 students tended to record information verbatim, whereas grade 8 students tended to be more efficient at note taking, writing many facts using fewer words. It was also demonstrated that many grade 4 students could be easily induced to use the highly selective and more efficient note taking strategy.

According to Brown, Bransford, Ferrara, and Campione (1983), previous research concerning children's learning in school settings has focused on how well students do on tests, rather than on what activities children engage in while studying. One common activity to use in school when studying is that of taking notes. In this context, then, the present research was conducted to characterize study notes prepared by children while reading prose passages for a later test.

Two functions of note taking have been identified in the research. One frequently suggested by college students as well as by researchers is that the process of taking notes will facilitate the learner's subsequent recall (Hartley & Davies, 1978; Howe,

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1974). Another function of note taking is to keep a record of information gained through listening to a lecture or reading a text for a subsequent review (Hartley & Davies, 1978; Howe, 1974; Rohwer, 1984). This second function of note taking is the focus of the present research.

What are some characteristics of children's notes that may be useful for investigation? One important feature of good study notes is that they contain information relevant to performance objectives to the exclusion of task irrelevant information (note relevancy). If the notes include only the task relevant information, students will not have to decide which parts to study in a later review situation. In addition to screening information, a note taker does not have to copy the task relevant information verbatim. Since study notes are simply for one's own use, the use of point form, thereby eliminating redundant words and phrases, permits the notes to be written more quickly (note efficiency). Copying task relevant information by deleting redundant words represents the simplest form of note taking strategies (Brown, Day, & Jones, 1983). These two characteristics (relevancy and efficiency) conform to two important decisions that students must make when they take notes, namely: (a) what information should be included in notes, and (b) in what form (Hartley & Davies, 1978). In light of these considerations, children's notes were characterized in the present research in terms of their relevancy and efficiency.

The two studies reported here were patterned after an experiment conducted by Tumolo and Kobasigawa (1976). In that study, grades 3, 5, and 7 children were asked to read and take notes on prose passages containing factual information (attributes of different bears) in preparation for a test. These investigators reported that the percentage of relevant facts contained in children's notes increased with age. For example, 63% of children's notes contained relevant facts at grade 3, while the corresponding figure was 73% at grade 7. This finding even for the grade 7 level, however, is not particularly impressive when we consider that nearly 70% of the facts included in the original reading passage were task relevant. Apparently, many of the students in the Tumolo and Kobasigawa study used a nonselective strategy, copying both relevant and irrelevant facts in their notes. With regard to note efficiency, it was found that the number of students copying the information in the passage verbatim clearly decreased between grades 5 and 7, whereas the difference between grades 3 and 5 was not significant.

To investigate further the characteristics of children's notes, two studies were carried out using grades 4 and 8 students. While general procedures and reading materials were similar to those used in the previous study (Tumolo & Kobasigawa, 1976), there were several differences between the present and previous investigations. First, the same number of task relevant and task irrelevant facts were included in the present reading material so that the relevancy of notes could be compared with the irrelevancy of notes more directly. Second, in the previous study the same amount of study time for taking notes was used regardless of grade. A pilot study was conducted to determine the time needed for note taking for respective grades, and the time allotted for each grade level in the present research was adjusted accordingly. Third, students were given only one trial to prepare notes in the previous experiment, whereas participants were given two trials to make notes in the present research. An additional trial was included to ensure that younger students were familiar with the procedure.

Study 1 was concerned with the manner in which children would spontaneously prepare notes when they had received instructions as to kinds of questions they would have in a later test (performance objectives). To demonstrate the replicability of our data, findings from a replication study are also provided in Study 1. Study 2 was

conducted to explore why some students do not take notes selectively or efficiently.

Study 1

Method

Participants. The participants were 25 grade 4 ($\bar{X}$ CA=9.9 years) and 25 grade 8 ($\bar{X}$ CA=13.9 years) students drawn from a predominantly middle-class parochial school in Windsor, Ontario. The participants for our replication study consisted of 20 grade 4 and 20 grade 8 students of comparable chronological ages drawn from a parochial school located in the outskirts of Windsor, Ontario. Within each grade, approximately half of the students were male and half were female. According to their teachers' judgments, none of the participants should have had difficulty in reading the materials used in the present research.

Materials. The materials prepared for each student were two story booklets, a note taking booklet, and a test sheet. The first story booklet consisted of two pages: a cover sheet and a page containing the instructions and the reading passage. The instructions indicated the task objectives and stated: "This is the first of two stories about different types of bears. You have to remember where each kind lives, what each kind eats, how fast each kind can run, and how much each kind weighs." These instructions, then, "defined" what kinds of factual data in the reading material would constitute task relevant information. The reading passage consisted of two paragraphs (111 words long) describing various characteristics of grizzly and polar bears, with the readability at a grade 3 level (Spache, 1953). The passage contained 11 task relevant facts (bears' food, weight, speed, and location) as well as 11 task irrelevant facts (e.g., bears' temperament, life expectancy, color). These pieces of task relevant and irrelevant information were randomly arranged in the reading material. The second story booklet was constructed in the same manner as the first except that its reading passage contained information about major characteristics of black and brown bears.

The note taking booklet consisted of three pages: a cover sheet with a space for a participant's name, grade, and birth date and two pages on which students prepared their notes. The test sheet contained 32 completion items (e.g., Brown bears can run — miles per hour) designed to assess children's recall of 21 task relevant and 11 task irrelevant facts.

Procedure. The students were tested in their respective classes. Each student received a package of the two story booklets (sets 1 and 2) and the note booklet. The experimenter initially told the students that they would read two stories about different types of bears and have an opportunity to make notes for a subsequent review.

The experimenter then told the students to turn to the first page of the first story booklet and read the instructions and passage with students. The instructions, as stated previously, described four types of questions (i.e., bears' food, speed, weight, and location) that would appear in a subsequent test. Grade 4 students were then given 10 minutes to read and take notes while grade 8 students were given five minutes. (In a pilot study, grade 4 students needed approximately twice as long as grade 8 students to read and copy a comparable passage.) This procedure was repeated for the second booklet.

Just to be consistent with the initial instructions that the notes would be prepared for a subsequent review, the students were given five minutes to examine their notes. This was followed by a 10-minute recall test. The entire test session was supervised by the experimenter and one adult assistant.

Scoring. Each child's notes for each trial were scored for note relevancy, irrelevancy, and efficiency. A note relevancy score was obtained by counting the number of task relevant facts recorded in the child's notes (i.e., 11 attributes contained in each set of booklets describing the bears' food, speed, weight, and location). When more than one fact defined the relationship between a particular type of bear and "items" (e.g., Polar bears eat *seals* and *walruses*), each fact was counted separately. A note irrelevancy score was defined as the total number of irrelevant facts recorded in notes (i.e., 11 attributes contained in each set of booklets describing the bears' temperament, color, life expectancy). Thus on each note taking trial, the maximum relevant or irrelevant score was 11. These two types of scores were used to examine the selective aspect of students' note taking behavior.

A note efficiency score was obtained by dividing the total number of words contained in the notes by the total number of relevant and irrelevant facts recorded in the notes (see also Howe, 1970). Consequently, a child's note taking was judged to be more efficient when the obtained ratio was lower.

Results and Discussion

Relevancy. The mean relevancy and irrelevancy scores for grades 4 and 8 students on each trial are presented in Table 1. Because the number of students sampled was different between the two schools, these data were analyzed by the general linear models procedure described in the Statistical Analysis System (Type III SS, 1979). Variables involved in the analysis were school (2), grade (2), relevancy-irrelevancy (2), and trial (2), the last two being within-subject variables. Follow-up mean comparisons were made using the Tukey (A) test (Cicchetti, 1972).

The most pertinent finding to the present study was that, irrespective of school, grade, or trial, students' notes contained more task relevant facts ($\bar{X}=9.61$) than task irrelevant facts ($\bar{X}=5.12$), and consequently, the main effect of note relevancy was significant, $F(1,86)=127.27$, $p<.001$. Interactions involving the relevancy variable were not significant.

Next, for each child, the number of relevant facts recorded was divided by the total number of relevant and irrelevant facts included in the notes (trial 2). Children whose proportion scores thus obtained were .85 (e.g., notes containing 11 relevant facts and 2 irrelevant facts) or higher were judged to have allocated their note taking effort exclusively or nearly exclusively to the recording of the relevant facts (highly selective strategy). In contrast, those children whose proportion scores were between .45 and .55 were judged to have used a nonselective strategy copying everything in an indiscriminate manner. After combining the data from the two schools, 27% of the grade 4 and 38% of the grade 8 students used the highly selective note taking strategy (i.e., proportion scores .85 or higher), whereas 33% of the grade 4 and 38% of the grade 8 students used the nonselective strategy. The age-related differences reported here were not statistically reliable. However, these data indicate that about one-third of children recorded information in an indiscriminate manner, although the group scores suggested, as previously described, students' notes contained more task relevant than task irrelevant items.

Efficiency. The mean efficiency scores for grades 4 and 8 students on each trial are summarized in Table 2. These scores were analyzed by the general linear models procedure involving variables of school (2), grade (2), and trial (2), the last factor being a within-subject variable. Students in School B ($\bar{X}=4.05$) were significantly more efficient than those in School A ($\bar{X}=4.42$), $F(1,86)=5.47$, $p<.02$. A main effect of grade and an interaction of grade by trial were significant, $F(1,86)=114.10$, $p<.001$ and

TABLE 1
Mean Relevancy and Irrelevancy Scores
for Grades 4 and 8 Students (Study 1)

		Trial 1		Trial 2	
		Relevancy	Irrelevancy	Relevancy	Irrelevancy
School A	Grade 4 (N=25)	6.80	3.44	8.96	5.04
	Grade 8 (N=25)	10.84	6.60	10.64	6.84
School B	Grade 4 (N=20)	8.85	3.90	9.40	4.55
	Grade 8 (N=20)	10.70	5.50	11.00	4.70

Note: highest possible relevancy and irrelevancy = 11

TABLE 2
Mean Efficiency Scores for Grade 4 and 8 Students (Study 1)

		Trial 1	Trial 2
School A	Grade 4 (N=25)	5.37	5.38
	Grade 8 (N=25)	3.52	3.40
School B	Grade 4 (N=20)	4.53	5.04
	Grade 8 (N=20)	3.34	3.29

Note: A note efficiency score = total number of words in notes/total number of facts in notes. The lower score indicates more efficient note taking by students.

F (1,86)=5.26, *p*<.02, respectively. This significant interaction emerged because grade 4 students' note taking became slightly less efficient with trial (trial 1 $\bar{X}$ = 4.99 and trial 2 $\bar{X}$ = 5.23) while grade 8 students' note taking became slightly more efficient with trial (trial 1 $\bar{X}$ = 3.44 and trial 2 $\bar{X}$ = 3.35). On each trial, grade 8 students were significantly more efficient than grade 4 students, *p*<.01. Because there were 22 facts in each story booklet with 111 words, the efficiency score would be 5.32 if students copied the text verbatim. Grade 4 students' efficiency scores suggest, then, that many of these students copied the text word-for-word, as illustrated by Example 1 in Table 3. In contrast, nearly 80% of the grade 8 students utilized point form as illustrated by Example 2.

Although both grades 4 and 8 students copied significantly more relevant than irrelevant facts, only a small proportion of them selected relevant material exclusively. Why did they not copy relevant material exclusively? One reason may be that these students were not able to discriminate relevant from irrelevant material. This, however, is unlikely. When grade 4 students in a preliminary study were explicitly asked to select those units of the passage relevant to each of the four questions one at a time, they underlined 85% of the relevant factual data, but no irrelevant material.

Another reason may be that the nonselective strategy is much easier to use than the selective strategy. To use the selective strategy, a child must keep in mind the performance objective during an entire period of note taking and decide whether a particular fact is relevant or irrelevant. Perhaps this may be a difficult task for grade 4

TABLE 3
Examples of Study Notes*

Example 1

Many polar bears weigh about 1200 pounds. They eat seals and walruses. Polar bears can run as fast as 25 miles per hour. They live in areas around the Arctic Ocean.

Example 2**

Polar (Bears)
 (live)—Arctic Ocean
 (eat)—seals, walruses
 (run)—25 mph
 (weigh)—1200 pounds

*Both of these notes are equally selective, recording only task relevant facts. However, Example 2 is more “efficient” than Example 1, containing fewer words.
**A few grade 8 students deleted the words in parentheses.

students to carry out. Some of the older students, in contrast, may not show the selective note taking because they now have skills to use point form or to pick up “key words” that enable them to write down everything in the allotted study time. In addition, the tendency to use the nonselective strategy may reflect students’ assumption that information not stressed at the outset may nevertheless appear on a later test.

In view of these considerations, Study 2 was conducted. To examine whether grade 4 students have the ability to use the highly selective strategy, half of them were explicitly instructed to write down only task relevant information in their study notes while the remaining children were tested using the same procedure as used in Study 1. Study 1 also showed that grade 4 students were likely to copy information verbatim, although grade 8 students were likely to delete redundant words. This age-related difference in note efficiency may simply reflect age-related differences in usual note taking practices in classrooms rather than in their basic abilities. To determine this possibility, as a last task, all of the grade 4 students were explicitly asked to use point form.

It was argued previously that grade 8 students, because they were efficient at note taking, might have had sufficient time to copy everything, and consequently some of them were not selective in note taking. In other words, older students may show more selective note taking behavior if given a longer passage with more relevant facts to record than the passage used in Study 1. Based on this reasoning, half of the grade 8 students in Study 2 received longer booklets containing more relevant facts while the remaining students received the same booklets used in Study 1.

Finally, a second session was included in which both grades 4 and 8 students were interviewed to assess their ideas about note taking strategies.

Study 2

Method

Participants. The participants were 25 grade 4 ($\bar{X}$ CA=9.9 years) and 26 grade 8 ($\bar{X}$ CA=13.9 years) students drawn from a predominantly middle-class parochial school in Chatham, Ontario. Within each grade, approximately half of the participants were male and half were female. Twelve grade 4 students were randomly assigned to a control condition in which they were tested using the same procedures as used in Study 1, whereas the remaining 13 students were assigned to a condition in which they were explicitly instructed to be selective in their note taking (explicit condition). Fourteen grade 8 students were randomly placed in a control condition in which they received the same reading material used in Study 1 while the remaining 12 grade 8 students were placed in a condition in which they received longer story booklets (longer story condition).

Materials. The story booklets, note taking booklets, and test sheets were identical to those used in Study 1. For the grade 8 students in the longer story condition, however, two sets of longer story booklets were prepared. The reading passage of each of the longer story booklets contained three paragraphs describing major characteristics of three types of bears. Two of these bears were identical to those included in the shorter version of story booklets. While the shorter version contained 11 relevant and 11 irrelevant facts, the longer version contained 18 relevant and 18 irrelevant facts. The test sheet for the longer story condition also consisted of completion items: 36 items assessed children's recall of relevant material and 16 items assessed children's recall of irrelevant material.

Procedure. There were two sessions in Study 2. The characteristics of students' notes were obtained in the first session. Children's ideas about note taking and grade 4 students' ability to use point form were assessed in the second session.

During the first session, participants were tested in groups of 12 to 14 by two experimenters. Each group consisted only of students in the same note taking condition and grade level. The procedures were identical to those used for Study 1 with the addition to be described. Similar to the first study, students received two story booklets and a note booklet appropriate to their assigned conditions. The experimenter then told students to read stories and make notes, and explained why they would need their notes later. The grade 4 students in the explicit condition were additionally told to pay special attention to the reading material related to the four questions that would appear in a subsequent test. They were instructed to write down only the answers to the four questions. Similar to Study 1, grade 4 students had two 10-minute note taking trials while grade 8 students had two 5-minute note taking trials.

On the following day (i.e., second session), children were interviewed individually to assess their ideas about note taking strategies. They were asked (a) whether they had copied information not asked for by the performance objectives and why, and (b) which method would be better to use, a nonselective strategy copying both relevant and irrelevant facts or a selective strategy copying only relevant information. Grade 4 students were then shown a sample of study notes written in point form (see Example 2, Table 3) and given a new story booklet that contained both relevant and irrelevant facts. They were asked to prepare study notes (where sun bears live, what sun bears eat, how fast sun bears can run, and how much sun bears weigh) "in the same way the study notes (Example 2) are done for polar bears."

Scoring. Each child's notes were scored for note relevancy, irrelevancy, and efficiency for each trial separately using identical procedures to those used in Study 1. Because numbers of facts contained in the shorter and longer versions of booklets

were different, proportion scores were obtained for the analyses of grade 8 students' data by dividing the note relevancy scores (note irrelevancy scores) by the appropriate number of relevant (irrelevant) facts contained in the story booklets.

Results

Relevancy. The data for Study 2 were analyzed in terms of the general linear models procedure (SAS, 1979). Each of the analyses involved one between-subject variable (grade or group) and two within-subject variables (relevancy-irrelevancy and trial). Because the main interest of the analyses was to determine the presence or absence of a significant main effect of relevancy and a significant interaction of relevancy by grade (or group), only these results will be summarized.

First, grade 4 and grade 8 control groups were compared to examine whether older children were more selective than younger children in their note taking activities. The analysis of the data revealed that the main effect of relevancy was significant, $F(1,24)=21.94, p<.001$, as was the interaction of relevancy by grade, $F(1,24)=4.65, p<.05$. This significant interaction indicated that grade 8 control children attained significantly higher relevancy scores ($\bar{X}=10.53$) than irrelevancy scores ($\bar{X}=5.50$), $p<.01$, whereas grade 4 control children showed comparable relevancy ($\bar{X}=9.67$) and irrelevancy ($\bar{X}=7.80$) scores. Approximately 30% of the grade 8 and 0% of the grade 4 control subjects used the highly selective strategy while 43% of the grade 8 and 67% of the grade 4 students used the nonselective strategy recording both relevant and irrelevant facts equally frequently.

Second, one question raised in Study 2 was "Do grade 4 children have the ability to select task relevant information to the exclusion of irrelevant information?" To examine this question, grade 4 control and explicit groups were compared. Both the main effect of relevance and an interaction of relevancy by group were statistically reliable, $F(1,23)=42.98$ and $F(1,23)=14.42$, respectively, $ps<.001$. The significant interaction reflects the fact that grade 4 students copied significantly more of the relevant ($\bar{X}=10.85$) than irrelevant ($\bar{X}=3.85$) facts when they were explicitly instructed to be selective (explicit group), but they did not show such selectivity under a spontaneous condition (control group). Under the explicit condition, approximately 70% of the grade 4 students used the highly selective strategy at least on one trial. About 15% of the grade 4 children still used the nonselective strategy even under the explicit condition.

Third, another question raised in Study 2 was "Do grade 8 students show better selectivity by not recording task irrelevant information if the quantity of factual data is increased?" This question was examined by comparing the grade 8 control group with the grade 8 "longer story" group. Because the number of facts contained in the reading materials was different between these two groups, the relevancy and irrelevancy scores were transformed into proportion scores (e.g., number of relevant facts copied in notes divided by the number of relevant facts contained in the text). The analysis revealed that the main effect of relevancy was significant, $F(1,24)=67.33, p<.001$; grade 8 students wrote down relevant facts ($\bar{X}=.96$) more frequently than irrelevant facts ($\bar{X}=.41$). As expected, students in the longer story group copied relatively fewer irrelevant facts ($\bar{X}=.33$) than those in the control group ($\bar{X}=.50$), although this difference was not statistically reliable. As compared with the grade 8 control subjects (selective strategy users=30% and nonselective strategy users=43%), more of the grade 8 students in the longer story group (50%) used the selective strategy and fewer of them (8%) used the nonselective strategy.

Efficiency. Efficiency scores were initially examined by comparing the two control groups (grade 4 vs. grade 8) to determine whether age-related differences in note efficiency observed in Study 1 would be found in Study 2. The analysis involved one between-subject variable (grade) and one within-subject variable (trial). As was found in Study 1, grade 8 students ($\bar{X}=3.66$) obtained significantly better efficiency scores than grade 4 students ($\bar{X}=4.51$), $F(1,24)=4.83$, $p<.05$. In addition, students at both grade levels were significantly more efficient at note taking on trial 2 ($\bar{X}=3.91$) than on trial 1 ($\bar{X}=4.19$), $F(1,24)=5.64$, $p<.03$.

One question raised in Study 2 concerning note efficiency was whether grade 4 children could be induced to attain better efficiency scores by merely showing them an example of highly efficient study notes. To this end, grade 4 students were exposed to such notes at the end of the second session and prepared their own notes regarding a new story (hereafter trial 3). After combining the two groups of grade 4 (control and explicit), mean efficiency scores were 4.52, 4.02, and 3.08 for trials 1, 2, and 3, respectively. The analysis of these scores revealed that grade 4 children obtained significantly better efficiency scores on trial 3 than on trial 1, $p<.05$, indicating that brief exposure to efficient notes was sufficient to improve younger children's note taking behavior. It is also interesting that no grade 4 children recorded any task irrelevant information in their study notes prepared on trial 3, demonstrating that these children had the ability to use the highly selective note taking strategy.

Interview data. One purpose of the interview questions was to find out why children include task irrelevant information in their notes. Thus those children (20 grade 4 and 18 grade 8 students) who recorded irrelevant information were asked why they copied material unrelated to the performance objective (four specific questions). The most frequent answer was that "irrelevant facts" might be asked in the test (81% of grade 4 and 72% of grade 8). Other major reasons were "I had extra time" and "they were important to me."

Another purpose of the interview was to obtain information concerning how children assess the relative usefulness of two strategies, a nonselective strategy copying both relevant and irrelevant information and a selective strategy copying only relevant information. One interesting observation was that grade 4 children in the control group and those in the explicit group tended to give different assessments; 67% of the control children indicated that the nonselective strategy was better while 77% of the explicit children said that the selective strategy was better. This difference was statistically significant, $p<.05$ (Fisher's exact probability test). Like the grade 4 children in the explicit group, a large majority of the grade 8 students (88%) thought that the selective strategy would be more useful.

Many children (67%) who selected the nonselective strategy justified their choice by referring to its benefit for the test situations ("You may need them for the test," "So you don't miss anything for the test"). Some of the students indicated that the nonselective strategy would be better because "you don't have to think about what to write down." Most of the younger students (70%) who selected the selective strategy said that this strategy would be useful because of the time factor during note taking while most of the older students (70%) said that such note taking strategy would facilitate subsequent study.

General Discussion

The present research was conducted to characterize children's notes prepared for a subsequent review for a test. The following two characteristics are of particular interest: (a) the extent to which children selectively record task relevant material in their notes, and (b) the efficiency with which children record factual data.

With regard to the selectivity, students' notes prepared under spontaneous situations revealed three major types of note taking strategy users: (a) those who recorded task relevant information to the exclusion of irrelevant information (selective strategy); (b) those who recorded mainly relevant information but also added some irrelevant information (partially selective strategy); and (c) those who copied both relevant and irrelevant information to the same degree (nonselective strategy). As one may expect from previous studies on children's selective attention, (e.g., Hagen & Hale, 1973), more of the grade 4 (67%) than grade 8 (43%) students tended to use the nonselective strategy in Study 2. On the other hand, grade 4 students in Study 2 rarely used the highly selective strategy while about 30% of the grade 8 students did so. However, the present research also has shown that younger children's lack of selectivity is somewhat dependent on schools.

Unlike the findings of Study 2 (67%), the percentage of grade 4 students who used the nonselective strategy was smaller (40%) in Study 1. Furthermore, about 30% of the grade 4 children in that study copied the relevant information exclusively. As a result, grade 4 students in Study 1, just as grade 8 students did, recorded significantly more relevant than irrelevant facts in their notes. However, the present research (3 schools involved) as well as the Tumolo and Kobasigawa (1976) study (2 schools involved) indicated that only a small proportion (40% or less) of grade 7 or 8 students utilized the highly selective strategy, and approximately the same proportion (40%) of these older students used the nonselective strategy, copying both task relevant and irrelevant information to the same degree.

The highly selective strategy examined in the present research calls for children's skills to divide a reading passage into task relevant and irrelevant units in terms of an instructional objective given in the reading booklet. Our findings suggest that many children have the ability to carry out these skills by the time they reach grade 4. About 70% of the grade 4 students selected relevant facts exclusively when they received explicit instructions to do so (Study 2). In addition, no grade 4 children included even a single task irrelevant fact in their notes when they were requested to make notes using point form (Study 2). Given that many children had the ability to use a highly selective strategy, why did they not use that strategy spontaneously? Below we examine four factors leading to children's failure to use the selective strategy.

First, the use of the selective strategy assumes that children attend to the instruction that defines what information is task relevant. The use of the nonselective strategy may be, at least in part, due to children's failure to attend to the task demand. Second, children may use the nonselective strategy even when they attend to the performance criterion, as some of the grade 4 students indicated in Study 2, simply because they believe that this strategy is easier to use than the highly selective strategy. Third, even if children believe that their note taking should be selective, some of them still use the nonselective strategy and others may use the partially selective strategy, as many of these children think that task irrelevant information might be asked in the test. Fourth, whether children choose the nonselective or partially selective strategy may be affected by another factor, the children's assessment of task difficulty. Thus more of the grade 8 students in Study 2 used the nonselective strategy when the reading material contained 22 pieces of factual information (relatively easy to copy all)

than when it contained 36 pieces of factual information (relatively hard to copy all in the allotted time).

With regard to the second characteristic of study notes, this study as well as the Tumolo and Kobasigawa study clearly indicated that grade 8 students obtain consistently better efficiency scores than grade 4 students. In the case of the selective note taking strategy, the major task was to delete task irrelevant material. In the case of note efficiency, the most common strategy was to delete redundant words, especially the names of bears once they had been used as headings or at the beginning of each paragraph. A few grade 8 students obtained still better efficiency scores by deleting the word “bear” completely as the heading “polar” or “brown” is sufficient for indicating the content of the paragraph that follows, or by deleting such verbs as “live” and “weigh” because such phrases as “the Arctic Ocean” and “1200 pounds” are sufficient to imply that these pieces of information are related to “where bears live” and “how much bears weigh” respectively.

It is reasonable to assume that opportunities for note taking and the amount of learning material presented to students should increase with age. As a result, older students are likely to realize that copying information verbatim from the text would be an inefficient strategy to complete the task within the allotted time. In contrast, teachers of younger children are likely to present information in the form of full sentences and encourage students to copy the presented information verbatim. The observed age-associated differences in the present research in note efficiency probably reflects such age-related differences in note taking practices in school. It was demonstrated in Study 2 that grade 4 students could be induced to improve efficiency scores rather easily.

In summary, the present research shows that many grade 4 children are capable of (a) recording information in their notes selectively according to a performance objective, and (b) deleting redundant words or phrases to increase their note efficiency, although many of these children may not use these skills spontaneously. Initially, children presumably take study notes using a nonselective strategy, copying every piece of information verbatim (absence of both [a] and [b]). Eventually, children’s spontaneous note taking shows a shift from this strategy of “copy all verbatim” to a selective but inefficient strategy (absence of [b]) or to a nonselective but efficient strategy (absence of [a]). Because skills to make notes selectively and skills to make notes efficiently are available in grade 4 children if age-appropriate material is used, there is no logical sequence in which these two types of shifts should emerge. The available data, however, indicate that the former type is more likely to appear than the latter type. Although many grade 8 students appear to think that selective note taking is desirable, they also think that task irrelevant information may be asked in the test. As a result, only a small proportion of grade 8 students actually use the highly selective strategy. In contrast, efficient note taking is highly useful whether one uses the nonselective or selective strategy. Perhaps, for this reason, students rarely copy information verbatim by the time they reach grade 8.

The strategy of recording relevant material in notes by deleting unnecessary words and phrases is applicable to a wide variety of learning situations and, therefore, should be taught to young students. However, what is required for a student to do in using this “copy-delete” strategy (Brown, Day, & Jones, 1983) is merely to list important items in point form in the same sequence in which they appear in original materials or in lectures. In certain situations, though, the original material may be condensed more efficiently by combining several pieces of information from different paragraphs. In addition, notes sometimes can be made in a diagramatic format

showing various relationships among different key concepts. How readily do young students learn to use these more advanced note taking strategies? Research is needed that includes learning materials that make more “cognitive transformational demands” (Rohwer, 1984) on students than those used in the present studies.

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Why School Board Members Choose to Seek or Not Seek Reelection: A Test of Political Efficacy and Trust Theory

Political theorists have suggested that political efficacy and political trust are key factors in determining an individual's participation in the political process. This study investigated the relationship between school board members' feelings of efficacy and trust and their decision to seek or not seek reelection. A typology of candidates and retiring members was generated from the data. Nearly all candidates seeking reelection ("the ready warriors") had feelings of high efficacy and high trust. Half the retirees had feelings of low efficacy and low trust ("the bitter vanquished"). Other smaller subgroups were also identified among the candidates and retirees.

In this study we investigated the question of why school board members choose to seek or not seek reelection in terms of political efficacy and trust theory. A number of political theorists have identified a sense of efficacy and a sense of trust as key factors in determining the extent of an individual's participation in the political process.

Political efficacy is defined as a person's sense and feeling that "the government is responsive to a person's actions, and that when a person participates in politics, there is some noticeable effect" (Kopinak, 1980). Persons who have a sense of political efficacy have the feeling that they can make their voices heard, that they can be personally influential, and that their contributions will affect the political outcome.

Political trust is defined as a person's sense and feeling that "the government is generally helpful, beneficial, trustworthy and capable" (Simeon & Elkins, 1974). Persons who have a sense of political trust believe that government is capable of achieving

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the ends for which it has been established.

We attempted to clarify the relationships between individual school board members' feelings of efficacy and trust and their decision to seek or not seek reelection. For example, are board members who have feelings of high efficacy and high trust more likely to seek reelection than those members with feelings of low efficacy and low trust? In other words, are those board members who feel that they can be personally effective in influencing the outcome of board deliberations and who have a belief that school boards can be effective in achieving the ends for which they were established more likely to seek reelection than those board members who have a low sense of personal influence on board outcomes and who also feel that school boards are a relatively ineffective form of school government? Or are some other combinations of feelings of high and low efficacy and trust more likely to be related to the decision to seek reelection or not seek reelection?

Perspectives

There has been a considerable amount of study done in the United States and Canada on why individuals run for school board (Cistone, 1974; Jakes, 1982, 1983; McCarty, 1959) and also on what effect the school board experience has on the individuals who serve (Cistone, 1982; Jakes, 1984; Robinson & Stacey, 1984). There has also been a considerable amount of study done on incumbent defeat among school board members (Creswell & Mitchell, 1980; Davis, 1984; Lutz & Iannoccone, 1970). There has not been, however, extensive investigation of why school board members choose to seek or not seek reelection.

Similarly, there has been considerable study of individuals' feelings of efficacy and trust and their involvement in federal and state/provincial politics (Iyengar, 1980; Simeon & Elkins, 1974; Steinburger, 1981; Welch, 1975). In a major study of regional political cultures in Canada, Simeon and Elkins (1974) developed a typology of citizens as political actors based on citizens' individual feelings of efficacy and trust. The four citizen types in the typology are as follows:

The "supporters" have high feelings of efficacy and trust and come close to the conventional ideal of the trusting and active citizen. The "critics" do not really trust the government but have some confidence in their ability to affect it. These individuals have the potential to become active in politics. The "deferentials" trust the government but do not feel they have much ability to affect it. These citizens are content to have government look after their interests. The "disaffected" have neither faith in government nor a sense of being able to influence it. They are apathetic and disengaged from politics. In their national sample, Simeon and Elkins found the percentages in each of the citizen types to be supporters (24%), critics (30%), deferentials (10%), and disaffected (34%).

Only one study (Hanke, 1984) has examined the relationships between feelings of efficacy and trust and individuals' involvement in school board politics. The data for the study by Hanke were collected in the 1982 school board elections in eight southwestern Ontario school districts. What Hanke attempted to do in this study was to test the Simeon and Elkins typology of citizens as political actors at the school government level. Hanke examined the feelings of efficacy and trust among a sample of citizens and three groups of political actors in school board elections. The three groups of political actors were: (a) aspirant candidates, those seeking office for the first time; (b) incumbent candidates, those board members seeking reelection; and (c) retiring incumbents, those board members not seeking reelection. Hanke hypothesized that the sample of citizens would have lower feelings of political efficacy in

Citizen Type	Feeling of Efficacy	Feeling of Trust
Supporter	high	high
Critic	high	high
Deferential	low	high
Disaffected	low	low

relation to school board government than any of the three other political actor groups. Hanke suggested as well that incumbent candidates and retiring incumbents would have higher feelings of trust toward school board government than would aspirants and the sample of citizens. Finally, Hanke suggested that aspirant candidates would be “critics” and would have high feelings of efficacy and low feelings of trust. Incumbent candidates would be “supporters” and would have high feelings of efficacy and high feelings of trust. Retiring incumbents would be “deferentials”; they would have low feelings of efficacy and high feelings of trust.

As expected, Hanke found the sample of citizens to have lower feelings of efficacy toward school board government than any of the other three groups of political actors. In addition, it was shown that aspirants and the sample of citizens had lower feelings of trust toward school board government than did incumbent candidates and retiring incumbents. Contrary to expectations, it was found that aspirants had lower feelings of efficacy than incumbent candidates and retiring incumbents. Quite surprisingly, there was little difference in feelings of efficacy and trust between incumbent candidates and retiring incumbents. The results of the Hanke study suggest only partial support for the Simeon and Elkins typology as it applies to political actors and school government. The typology is supported to the extent that incumbent candidates are indeed “supporters”—they have high feelings of efficacy and trust. The typology is also supported by the results obtained from the sample of citizens who are largely “disaffected”—they have low feelings of efficacy and trust. The typology receives only partial support in terms of the results for “critics” and “deferentials.” Aspirants as “critics” should have high feelings of efficacy and low feelings of trust. The results show aspirants to indeed have low feelings of trust but only moderate feelings of efficacy. Retiring incumbents as “deferentials” should have low feelings of efficacy and high feelings of trust. The results show that retiring incumbents have moderately high feelings of efficacy and high feelings of trust. Indeed, there were only small differences between incumbent candidates and retiring incumbents in terms of their feelings of efficacy and trust.

Reviewing the results of the Hanke study, we felt that the results could have been influenced by political environment factors. The eight school board elections studied were nonpartisan contests and were relatively issue-free. A more partisan and conflictual set of electoral contests might produce quite a different research result. Larger differences in feelings of efficacy and trust among political actors just might well surface in school board elections that were richer in partisan flavor and divisive issues. With that thought in mind, this study in British Columbia was designed.

Data Source

School board elections in most British Columbia school districts have in recent years become increasingly partisan contests between supporters of the government (majority) party at the provincial (state) level of government and supporters of the opposition (minority) party at the provincial level (Neilsen & Robinson, 1980-81; Robinson & Hansen, 1981). The elections are usually issue-filled and conflictual.

In 1982 in British Columbia the government party (Social Credit Party) at the provincial level enacted legislation which eliminated the fiscal autonomy of local school boards. Prior to this time, school boards had the right to determine the amount of their annual school budget and set their tax rates to raise the needed amount. The 1982 legislation removed this right. Instead, the provincial government established the amount of each school district's budget. The purpose of the legislation was to place restraint on spending by school districts. The effect of the legislation was severe. Across the province, school programs were cut and a large number of teachers lost their jobs through layoffs. The legislation was bitterly attacked by the provincial opposition party (New Democratic Party). The conflict between the Social Credit Party and the New Democratic party at the provincial level was echoed at the school board level with conflicts between board members who were supporters of restraint versus board members who were opponents of restraint.

This study was done in 1984 just prior to school board election time in November. The subjects of the study were 60 incumbent school board members from 24 school districts in British Columbia. The sample of board members chosen had two strata: (a) candidates (i.e., board members seeking reelection); and (b) retirees (i.e., board members not seeking reelection). The 60 members were chosen in as balanced a manner as possible. Where one member was seeking reelection and one was not seeking reelection from the same school district, both became part of the sample. Urban, suburban, and rural districts were represented.

Methods

The study used structured interviews in which feelings of efficacy and trust were explored. In addition, information was sought concerning political socialization experiences, political recruitment experiences, board service experiences, and political ambitions to see if these factors had any effect on the decision of individual board members to seek or not seek reelection. All interviews were done by telephone. The interviews were taped and transcripts of the tapes were prepared.

Two judges with extensive knowledge of political behavior in education were given the transcripts for all 60 respondents. These judges were asked to categorize each board member's feeling of efficacy and trust as being either "high" or "low." There was agreement among the judges on all but one of the 60 board members. With this one case, no agreement existed so it was eliminated from the analysis.

Results

The Candidates

The results shown in Table 1 demonstrate clearly that the vast majority of the 29 candidates for reelection had feelings of both high efficacy and high trust. In fact, all of the 29 candidates had feelings of high efficacy.

All the candidates felt that they were capable of making their voices heard and that their contributions would be important in determining the course of political outcomes at the school government level. The way in which individual candidates expressed their feelings of efficacy differed. Some candidates felt that they were

TABLE 1
Candidates: Feelings of Efficacy and Trust
(n = 29)

Category	n
High Efficacy/High Trust	26
High Efficacy/Low Trust	3
Low Efficacy/High Trust	0
Low Efficacy/Low Trust	0

important as “opposition spokespersons.” They felt they were needed to coalesce public and school board opposition to the provincial government’s restraint program. One candidate put it this way:

I have been important as a catalyst in organizing opposition to policies of the provincial government and I have to continue to draw attention to the shortcomings of the current financing arrangements.

Candidates who supported the provincial government’s restraint program also felt it was important that they continue to serve as board members.

It’s necessary to maintain the restraint program until the economy starts to pick up. . . . This is a time when diplomacy is needed. . . . I feel the board needs leadership and I can give it.

Irrespective of their positions on the restraint issue, a number of the candidates felt that they had an important stake in certain board programs and that their contribution was necessary to see the programs through to fruition. For example, one candidate said:

We used to have a Neanderthal policy on drugs and alcohol. We’re developing a new policy in which I have been involved. I just got to see that through.

Two other candidates commented:

I had planned to go to university but there are exciting things happening in the district. We are restructuring the district and I enjoy the challenge.

The superintendent is going to retire in the coming year and I want to be involved in that one.

Some of the candidates stressed the importance of their contributions to providing continuity in board operations.

Well, two other board members decided to retire so if I went too that would mean three “greenhorns” on the board and that’s too many in this restraint period. I didn’t want to leave the board when things are so difficult.

I can’t be chairman anymore because our board has a policy of limiting the chairmanship to three years . . . so I want to help and give advice to the new chairman.

Several candidates indicated that they felt they had to stay on the board to prevent the board from being controlled by factions or individuals that they considered less than desirable. One candidate put it this way:

I thought I would only stay one term but then restraint became a problem. There is all this polarization. . . . I saw that the teachers were trying to load local school boards with their candidates. . . . I thought that if I stayed I could lend balance.

Another candidate said:

I think I represent a balance, a more moderate stance. Our board has a strong leaning in one direction.

My personal preference would have been to retire but for one very vocal trustee. He set himself up as education critic and commenced to try to destroy the system and "to get the administration." No other trustee could work with him. I've given 12 years of blood, sweat and tears. . . . I couldn't retire and let him have it.

One candidate felt that it was important that he continue so that a particular pressure group (Canadian Parents for French) would not have undue influence on board policies. He observed:

We have this strong pressure from some parents for French immersion programs without realizing the implications of these programs. . . . It's important that the system not be jeopardized by a pressure group.

Finally, some candidates felt they had to stand for reelection because they perceived themselves to be superior to other persons who were candidates. One candidate put it very bluntly and clearly:

I surveyed the field of candidates and thought of who might be elected and that's when I decided the school board needed me.

Another candidate noted:

The guy who decided to run against me was "medieval" . . . you know, that stuff about teachers should work harder and be paid less. I just had to run again.

All but three of the 29 candidates had feelings of high political trust. As indicated earlier, political trust is defined as a person's sense or feeling that "the government is generally helpful, beneficial and trustworthy" (Simeon & Elkins, 1974, p. 404) and that the government is capable of achieving the ends for which it was established. The 1982 provincial legislation which eliminated the fiscal autonomy of school boards in British Columbia and resulted in a substantial reduction of the authority of these boards might have been expected to produce a big loss in political trust as it applies to school board members. This did not occur among the candidates. The board members who were candidates for reelection felt that school boards could continue to be effective government units that were capable of achieving the ends for which they were established. This was true regardless of whether the candidates were for or against the provincial government restraint program. Candidates who were in favor of the restraint program said:

With the current financial situation in the province, we can't afford the dollars in all areas. I am reasonably in support of the restraint program. . . . I am not in favor of militant approaches toward the provincial government.

The Ministry of Education feels school boards have failed to face the financial facts. . . . I don't think there is that much restraint on me as a trustee. Trustees have a lot of control over their destinies.

Candidates who were opposed to the restraint program still felt that school boards were accomplishing their ends. This was being done in spite of provincially imposed obstacles.

We've lost our autonomy. . . . We've lost our taxing power but we're still seeing some positive action in the face of restraint. We put in Project Read, French immersion and a gifted program.

The government's current stance to gain centralized control over education is retrograde . . . but I visit schools and I see good things, some due to the atmosphere engendered by the board . . . good things are happening, teachers are innovating and parents are coping in spite of everything.

We have lost our local taxing power. We have lost our local accountability. The function of the school board was designed for local control. Still we can encourage teachers . . . it is immediately reflected in classrooms.

Sometimes we have ideas we'd like to put in, but instead of expanding we are cutting back . . . it's very depressing. Still, I see what is happening in the elementary schools. We pay visits to the schools and see students really achieving. . . . Also in the high schools, the arts groups put on displays, the band or drama. . . . I see great things happening in our schools.

There were three candidates with feelings of low political trust. They did not feel that school boards were capable of achieving the ends for which they were established. Still they chose to run for what appear to be reasons of personal gratification. One candidate put it this way:

We have no local decision making . . . trustees are forced to be hatchet men or good guys at the whim of the Minister of Education. Still, I enjoy it, I think I do a credible job, I have no axe to grind and people listen to me.

The Retirees

The results shown in Table 2 indicate that exactly half the 30 retirees had low feelings of efficacy and low feelings of trust. Among this group of trustees with low efficacy and low trust, the feelings of low efficacy tended to be general and not specific. Typical of the comments were the following:

I just don't have the energy level to fight for things I think should be fought for. Someone younger with more energy will have to do it.

I began to become defensive about the decisions that were being made.

Many of the comments indicative of low efficacy related to the increased feeling of powerlessness experienced by board members as a result of the provincial government's restraint legislation. It should be pointed out, however, that retirees who supported the restraint program also had feelings of low efficacy deriving from other sources. One retiree observed:

I am frustrated with the Public Schools Act. Even with restraint and cutbacks in teachers, we can't remove the incompetent people from the system.

Another retiree explained his frustration this way:

I tried to educate others to my point of view but I have failed to alter the essential priorities of the system. . . . I've failed to point out to teachers that the views of the public are as important as their views . . . I am too discouraged and depressed . . . at my lack of progress. There's too much party politics on the board.

The feelings of low political trust were generally very pronounced among the group of retirees who expressed feelings of low efficacy. These retiring board members felt that school boards were no longer capable of achieving the ends for which they were established. Some of the comments made by these retirees were:

School boards are recipients of education policy handed out by the Ministry . . . boards are just puppets now. . . . Public opinion polls carry more weight with the Minister than does the opinion of trustees.

We have completely lost our autonomy . . . we could do without trustees right now. It's all very frustrating. We feel we're supposed to protect the instruction of children, then that is penalized by having our budget cut.

As board members we are not being able to effect the changes that the public would like. We work within the guidelines and the board makes a decision which may be overturned by the Minister of Education. Actually, the public has more power than school boards . . . because public lobbying of the Minister works. He'll listen more to the public than he will to us.

TABLE 2
Retirees: Feelings of Efficacy and Trust
(n = 30)

Category	n
High Efficacy/High Trust	9
High Efficacy/Low Trust	2
Low Efficacy/High Trust	4
Low Efficacy/Low Trust	15

Within the group of 30 retirees there were nine who had feelings of high efficacy and high trust. In this regard, these retirees resembled the vast majority of the candidates with their feelings of high efficacy and high trust. In what way was this group of retirees different from the larger group of retirees with their feelings of low efficacy and low trust? Essentially, these board members had had positive experiences during their term of office, but were ready to move on to other challenges. In some cases, the board members were going to run for higher political office. In other cases, they were going to make a career change. These board members did believe, however, that school boards were important and were capable of meeting the challenges they faced. One of these retirees expressed himself as follows:

The present financial legislation makes things hard, but I have seen positive changes coming about for children. We've provided options for children who would have dropped out. . . . We've kept schools open that were planned for closure. . . . I just became more and more interested in civic issues . . . the larger perspective . . . besides there were others from our slate who were electable and it seemed a good time for me to make a move.

A small group of the retirees (4 of the 30) had feelings of low efficacy and high trust. This group consisted of older trustees who felt they were no longer effective but were still firmly committed to the worth of school board government. A final group of the retirees (2 of the 30) had feelings of high efficacy and low trust. This small group felt that they could be politically efficacious on the school board but at the present time school boards were pretty impotent instruments of government. They simply felt that they could spend their time more profitably elsewhere.

*Candidates and Retirees: Differences in Political Socialization,
Political Recruitment, Political Ambition and Board Experiences*

Information was sought from both the candidates and retirees about their political socialization experiences, their recruitment into school board politics, their political ambitions, and their experiences as school board members. This information was analyzed to determine whether any of these factors bore any relationship to the decision to seek or not seek reelection.

The interview data revealed the candidates and retirees to be remarkably alike in terms of their political socialization, political recruitment, and political ambitions. In terms of political socialization, a majority of both the candidates and the retirees had had a long time interest in politics. One candidate remarked:

I've always been interested in politics, especially when I went to university.

One of the retirees said:

About 1930 I became interested in national and local politics. I started in a political party early on.

For 10 of the 29 candidates and 13 of the 30 retirees, political activity was part of their family life as children. One candidate noted:

Dad was involved in various political movements—anti-war, anti-nuclear power plants. Mom was involved in the Women for Peace movement in the States.

A remarkably large percentage of both the candidates and retirees held political party memberships. In British Columbia, Mishler (1979) reports that 7% of citizens are members of political parties. In this group of school board members, 63.3% of the candidates and 44.8% of the retirees said they were members of a political party.

In terms of political recruitment, the experiences of the candidates and retirees were similar. Most became involved because they had issue differences with incumbents or they had an issue which they wished to promote. Most said their first-time candidacies were self-initiated.

A majority of both the candidates and retirees had no political ambitions beyond the school board level. Only six of the 29 candidates and nine of the 30 retirees had political ambitions at the city council, provincial, or federal level.

The big difference between the candidates and the retirees lay in the way in which they perceived their school board experiences. The candidates saw themselves as efficacious board members and they tended to take personal credit for many of the board's achievements. The retirees, on the other hand, were more inclined to attribute any board achievement to the board as a whole.

Both the candidates and retirees expressed disappointment as well as satisfaction about their board experiences. For example, individuals in both groups talked about the difficulties they had experienced with the provincial restraint program. The retirees felt personally frustrated with their inability to deal with this and expressed a loss of faith in the system. The candidates, on the other hand, expressed a willingness to grapple with the problems and to get on with the business of governing a school system.

In terms of school board service, the candidates had an average of 4.23 years of service. The retirees had an average of 7.03 years of service.

Conclusions and Implications

The findings of this study attempted to clarify the relationship between individual school board members' decisions to seek or not seek reelection and their feelings of political efficacy and political trust. Research to date in a number of political arenas has suggested a strong relationship between active political participation and feelings of high political efficacy and high political trust (Burke, Clarke, & LeDuc, 1978; Hanke, 1984; Iyengar, 1980; Simeon & Elkins, 1974; Sinclair, 1979; Steinburger, 1981). What these studies have shown is that persons who feel politically efficacious and who trust the ability of the government to achieve the ends for which it was established have a greater tendency to become involved in the political process than those individuals who do not feel politically efficacious and who do not have trust in the ability of government to achieve its ends.

The findings of this study support to a considerable extent the findings of other studies which show the relationship between active political participation and high political efficacy and trust. The findings of this study showed that 26 of 29 candidates had feelings of high efficacy and high trust whereas only nine of the retirees had feelings of high efficacy and trust. The findings also showed that 15 of the retirees had feelings of low efficacy and low trust whereas none of the candidates had feelings of

low efficacy and trust. In general, then, high efficacy and high trust were associated with active political participation (standing for reelection). Low efficacy and low trust were associated with no political participation (not standing for reelection).

Not all candidates had, however, feelings of high efficacy and high trust. A small group (3 of 29) had feelings of high efficacy and low trust. Similarly, not all retirees had feelings of low efficacy and low trust. In fact, only 15 of the 30 retirees experienced low efficacy and low trust. A sizable number (9 of 30) had feelings of high efficacy and high trust. Two other small groups of retirees had feelings of low efficacy and high trust (4 of 30), and feelings of high efficacy and low trust (2 of 30).

The findings of this study suggest that school board members at reelection time do not fit easily into established typologies of political actors. For example, the Simeon and Elkins typology of citizens as political actors is not too useful to typologize school board incumbents at reelection time. Candidates and retirees do not in most cases fit easily into the categories of supporter, critic, deferential, and disaffected. Similarly, the situation of incumbents has to be seen as somewhat different from the situation of aspirant candidates at election time. Unlike the aspirants, the candidates have had tempering experience of service in political office.

The findings from this study would seem to suggest that six groups of school board incumbents emerge at school board reelection time. Two groups emerge among the candidates, and four groups emerge among the retirees.

The two groups which form the candidate group might be typologized as follows:

Ready warriors. These are the incumbent board members who have feelings of high efficacy and high trust and who are offering themselves as candidates for reelection. They see themselves as personally efficacious and they see school boards as important and potentially effective means of school government. These incumbents are the primary source of candidates for reelection.

Glory seekers. These are the incumbent board members who have feelings of high efficacy and low trust but who, nevertheless, offer themselves for reelection. They do not see school boards as particularly effective instruments of school government but choose to run for office as a means of self-gratification and self-aggrandizement. They enjoy the attention and status that political office brings. These incumbents are a smaller secondary source of candidates for reelection.

The four types which emerge among the retiree group might be called:

Bitter vanquished. These are the incumbent board members who have feelings of low efficacy and low trust and who choose not to seek reelection. They see themselves as no longer efficacious and they see school boards as impotent instruments of school government. These incumbents form the largest block of retirees.

Political mercenaries. These are incumbent board members with feelings of high efficacy who are not seeking reelection. In some cases, these members have feelings of high trust; in other cases, they have feelings of low trust. The important distinguishing characteristic of this group is the political ambitions of its members. Whether the members of this type feel that school boards are effective or ineffective instruments of school government is less important than the fact that the members felt that they had been efficacious as board members and that they were ready to seek out new political challenges in the arenas of civic, provincial, or federal politics.

Political deserters. These are incumbent board members with feelings of high efficacy who are not seeking reelection but who are not politically ambitious. They see themselves as having been efficacious as board members. They may or may not have felt that school boards were effective instruments of school government. What is important is that these members feel that they are ready to move on to new challenges in

areas outside the political arena. They have decided that political life at the school board level or any other level is not for them.

Exhausted deferentials. This is a small group of incumbents who have feelings of low efficacy and high trust. They perceive themselves as no longer efficacious but have faith in school boards as instruments of government. These incumbents (who are usually older) form a smaller part of the retiree group.

Service on a school board can be a heady political experience. This is likely to be true if the individuals who enter the service have had a long and abiding interest in politics. It is particularly true if the election leading up to the service is a partisan contest with sharp issue differences between the candidates. It is also true if the issues which divided the candidates at election time continue to divide the successful candidates when they become board members.

The overall effect of school board service in partisan, conflictual situations is one of politicizing the incumbents (Robinson & Stacey, 1984). In effect, the board members become "political gladiators" (Mishler, 1979). Some, like the "ready warriors," enjoy and value political life at the school board level and feel compelled to continue to serve. A few, such as the "glory seekers" serve for reasons of self-aggrandizement. Other board members leave the wars of school board politics. Some, like the "political mercenaries," choose to fight in new fields of politics at the civic, provincial, or federal level. Others, like the "political deserters," decide that the political life is not for them and decide to focus their energies elsewhere. Still others, like the "exhausted deferentials," become tired and leave the task of school government to fresher and more energetic persons. And still others, like the "bitter vanquished," leave the battlefield of school politics as defeated and disillusioned persons.

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Teachers' Motivations for Participating in Curriculum Development Committees

The purpose of this study was to answer two research questions: (1) What variables influence teachers' willingness to participate in curriculum development committees? (2) In what ways do these variables make a difference to teachers? Six categories of variables were drawn from the literature. Brief statements (called indicators) were written to reflect the meaning implied by each category. Twenty-three elementary school teachers were asked to do a card-sort showing the relative importance of each indicator, and to answer specific questions about their rankings of the indicators. The data show that teachers are most attracted to participation in curriculum development committees by the prospect of professional development and participation in decision making. Of secondary importance were the categories of self-esteem and organizational climate. Career orientation and extrinsic rewards were least valued by the teachers. The findings of the study have implications for the organization of curriculum development committees and for the kinds of work which the committees perform.

Increasing attention has been given to classroom teachers as curriculum developers outside their own classrooms, for there is considerable evidence that teacher participation in curriculum development benefits the development process.

First, research shows that teachers bring specialized knowledge to the curriculum development process. Because teachers spend most of their time working directly with students, they offer firsthand knowledge about schools, students, and the classroom situation (Ben-Peretz, 1980; Broome, 1980; Connelly, 1972; Connelly & Ben-Peretz, 1980; Doll, 1974; Oliver, 1970). According to Verduin (1962), teachers are more familiar than external experts with individual differences in children and their individual needs, while Zisenwine (1982) pointed out the teacher's ability to structure the curriculum according to local needs and interests. There is also evidence that teachers

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have the ability to create practical materials for classroom use. Ben-Peretz and Tamir (1982) claim that teachers are extremely concerned with usability because they implement curricula. Therefore, when curricula are developed by teachers, consideration is given to the development of materials which other teachers can use without difficulty.

Second, curricula are more likely to be implemented effectively when teachers are involved in their development, thus narrowing the gap between theory and practice (Carlin, Purchall, & Robinson, 1976). Oliver (1970) writes that the more teachers are involved in the development process, the more readily they accept new ideas. There is also evidence that teachers develop commitment to the curricula they have helped to produce (Carlin, Purchall, & Robinson, 1976; Doll, 1974; Kemp, cited by Walton & Morgan, 1978; Oliver, 1970).

However, although research indicates that it is desirable for teachers to participate in curriculum development outside of their own classrooms, few studies have explored teachers' motivations for becoming involved. In order to identify variables which may be related to teachers' willingness to participate in curriculum development, a review was conducted of literature pertaining to participation in decision making. Three contexts were studied: organizations in general, schools in particular, and curriculum development committees.

The variables identified through the literature search were grouped by the researcher into six categories: self-esteem, career orientation, organizational climate, professional development, participation in decision making, and extrinsic rewards. A brief summary of each category appears below.

Many researchers have written about self-esteem and the factors which influence whether a person has high or low self-esteem (Alutto & Belasco, 1972; Forsyth & Hoy, 1978; Hoy & Miskel, 1978; Wickstrom, 1973). According to these researchers, self-esteem is based on such factors as a feeling of competence, respect from others, and association with people in positions of authority. Other researchers, studying curriculum development in particular, have found that participation in curriculum development can enhance teachers' self-esteem (Carswell, 1977; Keith, Blake, & Tiedt, 1968; Miller & Dhand, 1973; Young, 1985). Teachers in these studies claimed that their self-esteem increased when their knowledge grew, when their contributions were accepted by other committee members, and when they were asked to participate and were paid for their work.

Career orientation refers to employees' commitment to their work for the purpose of advancing to another position or for improving their current positions. Career-related factors such as status, recognition from superiors, the possibility of becoming more influential in curriculum development, promotion, and job security are of concern to many teachers (Holdaway, 1978; Hoy & Miskel, 1978; Johansen, 1967; Leithwood, 1982; Morrison, Osborne, & McDonald, 1977; Walton & Morgan, 1978; Wickstrom, 1973). Since opportunities for promotion within teaching are rare (Leithwood, 1982) and the reward system does not differentiate among individuals who are operating at the same hierarchical level (Young, 1985), teachers may welcome career-related incentives for participating in curriculum development (Soliman, cited by Walton & Morgan, 1978).

Organizational climate refers to the relationships among people working at the same level as well as at different levels of an organizational hierarchy. An open climate is characterized by such factors as good interpersonal relations, group cohesiveness, teamwork among staff members, a non-threatening atmosphere, and cooperation and support from superiors (Grassie & Carss, 1972; Holdaway, 1978; Hoy & Miskel, 1978; Leithwood, 1982; Miskel, Fevurly, & Stuart, 1979; Walton & Morgan, 1978;

Wickstrom, 1973). Hoy and Miskel (1978) concluded from their research that the more open or healthy the climate of one's workplace, the greater the degree of job satisfaction. It is possible, then, that, if the climate of a school district is open, teachers will be more satisfied with their work and may, therefore, be more willing to participate in curriculum development.

Professional development refers to increased understanding and expertise related to a person's work. Teachers have acknowledged a feeling of professional growth when they participated in curriculum development committees (Miller & Dhand, 1973; Young, 1985). Many of the teachers in these studies claimed that participation was stimulating, that they learned a great deal, and that they felt rejuvenated about teaching. They felt that such professional development had a positive effect upon their teaching.

Participation in decision making refers to employees' desire to have input into decisions which affect their work. Teachers differ in the extent to which they wish to participate, and they are influenced by such factors as the task to be performed and the level of schooling at which they work (Chung, 1985). However, Young (1985) reported that participation in work-related decisions is of primary concern to many teachers. There is also evidence that teacher participation in decision making increases job satisfaction (Alutto & Belasco, 1972; Holdaway, 1978; Hoy & Miskel, 1978). The explanation may be that, when teachers participate in decisions which are directly related to their work, they feel they have a stake in the proposed solutions (Hoy & Miskel, 1978) and acquire a sense of responsibility for the decisions that are made (Grassie & Carss, 1972; Miskel, 1972; Walton & Morgan, 1978; Wickstrom, 1973; Young, 1984). However, Conway (1984) warns that the evidence supporting the positive results of participation in decision making is not yet conclusive.

Extrinsic rewards refers to the desire of employees to receive tangible acknowledgment for the work that they do. Lortie (1975) found from his research that teachers rarely receive overt honors for their achievements. As Young (1985) pointed out, the reward system in most school districts is based on teachers moving out of the classroom into higher levels of the organizational hierarchy rather than receiving rewards for their work as teachers. Teachers are not necessarily pleased with this state of affairs. Hoy and Miskel (1978), for example, found that teachers want the salary reward to be contingent upon performance.

The literature suggests, then, that there are six categories of variables which may attract teachers to participation in curriculum development outside of their own classrooms. However, the categories which are most important to teachers have not been identified; nor do we know why certain categories may be more motivating than others. Therefore, the purpose of this study was to answer the following two research questions.

1. What variables influence teachers' willingness to participate in curriculum development committees?
2. In what ways do these variables make a difference to teachers?

Method

Development of the Measuring Instrument

The measuring instrument was a card-sort which was developed in three stages. First, six categories of variables which may motivate teachers to participate in decision making were derived from the literature. They were self-esteem, career orientation, organizational climate, professional development, participation in decision making and extrinsic rewards.

Second, in order to apply the categories to curriculum development committees in particular, the researcher wrote statements (called indicators) related to each category. For example, an indicator of the category of Career Orientation was *Your work on the curriculum committee has enabled you to move into a more desirable teaching position*. Four indicators were written for each category and typed on separate cards. Each indicator was designed to touch upon a particular aspect of the category. For example, the indicator given above suggested the possibility of a new and better teaching position, while another indicator offered the possibility of a principalship or a consultant's position.

Third, five elementary school teachers were asked to sort a random sequence of the 24 indicator cards into the six categories. This was done to determine in what ways, if any, their interpretation of both the categories and the indicators differed from that of the researcher. Revisions were made on the cards which more than one teacher found difficult to categorize. (The indicators appear in Tables 2-7.)

Pilot Study

Prior to data collection, a pilot study was conducted with a different group of five elementary school teachers to give the researcher experience in conducting the research procedure and to determine the amount of time which the procedure would require.

Sample

A major consideration in selecting a sample was to locate teachers from a variety of school districts so that the data would not be influenced by the curriculum development policies and procedures of one particular district. Since it was not feasible to travel throughout the province, the researcher contacted teachers who were currently enrolled as graduate students at the University of Alberta. Contacts were made through required courses in the Faculty of Education. Twenty-seven teachers identified themselves as having taught in an elementary school classroom within the last two years. Twenty-three (85%) of those teachers agreed to participate in the study.

It is possible that graduate students may be different from other teachers because they have chosen to continue their university studies. However, the researcher did not find any evidence in the literature supporting this point, and in any case it seemed that broad geographic representation would best serve the purposes of this study.

The sampling procedure did result in broad geographic representation, for the teachers were drawn from 14 school districts. Twelve of the districts were located in Alberta, one in Ontario, and one in New Brunswick. The subjects' teaching experience ranged from 3 to 20 years, with an average of 9 years. Six (26%) of the teachers had participated at some time on a curriculum development committee.

Data Collection

Each teacher met with the researcher for a private interview. The teacher was told that the purpose of the study was to find out what motivates teachers to participate in curriculum development committees.

The teacher was given the 24 randomly sequenced cards of indicators and asked to place each card in one of the following categories: Most Important, Important, Somewhat Important, and Not Important. The reason for using a four-point scale was to eliminate the possibility of having the majority of the cards placed in a middle category.

When the card-sort had been completed, the teacher was interviewed regarding the placement of the cards. The interview was tape recorded and later transcribed.

Particular attention was given to the Most Important category because the purpose of the study was to determine which variables motivate teachers to participate in curriculum development and why those variables are important to teachers.

The teacher was asked to explain why the cards in that category were particularly important to him or her. The interview then continued with three follow-up questions: "These are the things you would like to achieve from working on a curriculum development committee. Do you think you would achieve them?" "Would you rather achieve these things through some other means?" "Is there anything else that is very important to you that is not included in these cards?"

The teacher was also asked to explain why certain cards had been placed in the Not Important category. It was thought that the responses could shed light on variables which were less likely to influence teachers' willingness to participate in curriculum development committees.

Inconsistencies in the placement of cards were also probed. An example would be the placement of three of the four indicators of self-esteem in the Most Important category and one indicator of self-esteem in the Somewhat Important category.

Data Analysis

The researcher charted the frequency with which each card was placed in each of the categories: Most Important, Important, Somewhat Important, and Not Important. This procedure was used for each of the six categories of variables. As a result, it was possible to identify the relative importance which the teachers attached to the six categories and the relative importance given to each indicator of a category.

The taped interviews were used to identify the reasons which the teachers gave for their placement of cards in the Most Important and Not Important categories. The reasons were listed for each category, and the frequency with which teachers gave those reasons was totaled.

Findings

Relative Importance of the Six Categories

Table 1 summarizes the relative importance the teachers gave to each of the six categories of variables which may attract teachers to participation in curriculum development.

As shown in the table, the teachers were most attracted to the categories of Professional Development and Participation in Decision Making. According to the interviews, the teachers valued Professional Development because they were interested in learning more about all aspects of their work. They felt that, by acquiring more knowledge, they would inevitably become better teachers. Also, new curricular ideas would stimulate their interest in teaching.

The teachers were attracted to the category of Participation in Decision Making primarily because it offered the opportunity to express their opinions and to have more input into decisions which affect their work. The teachers' attraction to this category may be explained by the fact that they are at the bottom of the educational hierarchy and, therefore, do not often have the opportunity to influence the curriculum decisions which are made. In addition, many of the teachers felt that participation in decision making leads to increased job satisfaction which results in more effective teaching.

The teachers placed equal value on the categories of Self-Esteem and Organizational Climate. Some of the teachers were very attracted to the category of Self-Esteem while others did not give it much importance. The teachers who were

TABLE 1
Relative Importance of the Six Categories
of Reward for Participation
in Curriculum Development Committees

Category	Most Important	Important	Somewhat Important	Not Important
A. Professional Development	50	29	12	2
B. Participation in Decision Making	41	33	16	2
C. Self-Esteem	13	39	28	12
D. Organizational Climate	13	39	28	12
E. Career Orientation	12	25	27	27
F. Extrinsic Rewards	1	6	24	61

attracted to this category felt that receiving recognition from others was important. Comments made by the teachers suggest that, while some teachers have a greater need to increase their self-esteem, others feel that their self-esteem needs are currently being satisfied.

The teachers were attracted to the category of Organizational Climate primarily because it is important to them to work in a nonthreatening atmosphere; that is, one in which they can trust the people with whom they work. The teachers also indicated that it is important to feel relaxed and at ease with their colleagues and to know that they have support from their immediate supervisors.

The category of Extrinsic Rewards was least valued by the teachers primarily because they did not feel that it is necessary to be compensated for serving on a curriculum development committee. The teachers felt that participation in curriculum development is something which teachers become involved in because of a sense of professional commitment to the teaching profession rather than because of possible extrinsic rewards.

At this point it appears that certain categories of variables are more likely than others to encourage teachers to participate in curriculum development committees. However, it is also possible that certain aspects of each category are more attractive than others. This information was obtained by studying the indicators written for each category. The totals of the most important and important columns in each table were used to determine the relative importance of the indicators.

Relative Importance of the Indicators of Professional Development

As shown in Table 2, all four indicators of Professional Development were important to the teachers in this study.

The teachers were most attracted by the indicator *You are increasing your knowledge about subject matter, teaching and education because of working on the curriculum committee*. As one teacher pointed out, "The more knowledge you have about subject matter and how that is going to be taught can do nothing but improve our teaching and enhance the outcomes of our students." Said two other teachers, "There is just no end to knowing everything there is to know about a subject area" and "Getting into curriculum work makes my understanding of the curriculum and the resources available better." It was also important to teachers to understand the

TABLE 2
Relative Importance of the Indicators
of Professional Development

Category A: Professional Development	Most Important	Important	Somewhat Important	Not Important
1. You are increasing your knowledge about subject matter, teaching, and education because of working on the curriculum committee.	19	4	0	0
2. Working on the curriculum committee makes you feel rejuvenated about teaching and anxious to try out the ideas you gained with your students.	12	7	2	2
3. Interaction at meetings allows committee members to discuss and challenge each others' ideas.	8	11	4	0
4. Working on the curriculum committee is enabling you to make a contribution to the teaching profession outside the classroom.	11	7	5	0
Totals	50	29	11	2

rationale underlying a curriculum. One teacher said, for example, “I would hope by working on a curriculum committee that somehow one would gather more of the big picture. You’d see more of the larger plan of the curriculum, its justifications, the problems of making and putting it into practice.”

As shown in Table 2, a number of teachers valued the possibility that *Working on the curriculum committee makes you feel rejuvenated about teaching and anxious to try out the ideas you gained with your students*. Rejuvenation was important to these teachers because they felt that it enhances the work they do in the classroom. As one of the teachers said, “You always need a shot in the arm when you are teaching to keep your motivation and still feel excited about teaching. It gives you that and that’s a plus!”

Many teachers also valued the indicator *Interaction at committee meetings allows committee members to discuss and challenge each others’ ideas*. These teachers wanted to acquire professional growth from interaction with other professionals in their field. Comments made by these teachers included, “From interacting with other interested, knowledgeable professionals, you learn a lot,” and “You will become more knowledgeable because you are sharing ideas with other people and I think that knowledge will help you become a better teacher.” One teacher felt that curricular problems can be resolved as a result of interaction with other professionals. This particular teacher said, “My ideas get other people going and their ideas get me going and a lot of neat things come out and it leads to other ways of handling a curricular problem or subject differently than in the past.”

As revealed in Table 2, many teachers felt that teaching involved more than their individual classrooms. These teachers were attracted by the indicator *Working on a curriculum committee is enabling you to make a contribution to the teaching profession outside of the classroom*. These teachers considered curriculum development to be part of their responsibility as teachers. One teacher said, for example, "The classroom isn't the only part of the teaching profession. It's not the only reason a teacher is in the job. Teaching is everything you do within the context of teaching."

Relative Importance of the Indicators of Participation in Decision Making

As illustrated in Table 3, the teachers were most attracted by their perception that *Working on the curriculum committee gives you the opportunity to voice your opinions about the curricula used in classrooms*. These teachers seemed to feel that, because they spend the majority of their time in classrooms working with students, they know what works best in classrooms. Therefore, they have practical expertise to offer the curriculum development process. One teacher said, for example, "It's really important when you write curriculum to have teachers who are in classrooms because I find that often I'm given things to teach that people are writing here at the University who haven't been in the classroom for 20 years and it isn't practical at all! I think if you're a teacher and you're doing the teaching, you know what works for a variety of students." Said another teacher, "I have very strong feelings about some of the curricula we are currently using and some of it is trash that is being mandated that we teach. It's not so much the theory behind the curriculum that I object to, it's the content that I object to. It's dull, boring, flat, not interesting to me to teach! So, how can I make it interesting to the kids?"

The teachers were also very attracted by the idea that *Working on the curriculum committee gives you the opportunity to decide on the curricular materials to be used in your school*. The teachers indicated that they wanted to be more involved in decisions which directly affect their work and that they experience frustration when they have no control over the curriculum decisions which are made. As one teacher said, "Often we are given curricular materials without having had the opportunity to voice our opinions or to give any kind of input as to whether that particular curriculum would fit our particular situation with our particular students."

Equally attractive was the possibility that *Working on the curriculum committee gives you the opportunity to decide how a subject should be taught*. Once again, the teachers felt that, because they teach the subjects of the curriculum, they should be involved in determining the strategies for teaching those subjects. Said one teacher, "There is some controversy over how subjects should be taught and I'd like to have my say, an opportunity to express myself and say what I think!"

Fewer teachers were attracted to the idea that *By working on the curriculum committee, you can satisfy your curiosity about how curriculum decisions are made*. This suggests that the teachers are more concerned with having the opportunity to voice their opinions than with learning how the decision making process is effected.

Relative Importance of the Indicators of Self-Esteem

As indicated in Table 4, the teachers thought they would derive feelings of self-esteem primarily if *You have been chosen for curriculum committee work because of your expertise in different areas*. Typical comments included, "It would make me feel good to know that others thought I had expertise to offer" and "It would make me feel good to be recognized for being good at something."

TABLE 3
Relative Importance of the Indicators
of Participation in Decision Making

Category B: Participation in Decision Making	Most Important	Important	Somewhat Important	Not Important
1. Working on the curriculum committee gives you the opportunity to voice your opinions about the curricula used in classrooms.	12	10	1	0
2. Working on the curriculum committee gives you the opportunity to decide on the curricular materials to be used in your school.	12	7	3	1
3. Working on the curriculum committee gives you the opportunity to decide how a subject should be taught.	12	7	3	1
4. By working on the curriculum committee you can satisfy your curiosity about how curriculum decisions are made.	5	9	9	0
Totals	41	33	16	2

It is worth noting that teachers are usually chosen for curriculum committees by people in positions of authority such as their principals and administrators from central office. Therefore, the importance of this indicator suggests that it is the *source* of recognition that makes a difference to teachers. This inference is supported by the fact that the other three indicators of self-esteem involved recognition by other teachers. Compliments from colleagues were apparently not valued as highly as recognition by superiors in the educational hierarchy.

Relative Importance of the Indicators of Organizational Climate

Table 5 shows that the indicator *You feel comfortable sharing the work of the committee with the teachers in your school* was most important to the teachers. As one teacher said, “I like to feel that I can share my ideas and interact with the teachers I am working with.”

Many teachers also felt strongly about receiving support from central office and their school administrators. These teachers valued the indicators of *Central office encourages the committee to pursue their work in the way they think best* and *You feel that your principal is supporting the work of your committee*. According to these teachers, administrative support is essential in order for a project to be successful. As one teacher remarked, “If you don’t have support from head office you’re done for because they wouldn’t let you go out and experiment with new ideas and go to conferences and all sorts of things and they wouldn’t support the activities in your school

TABLE 4
Relative Importance of the Indicators
of Self-Esteem

Category C: Self-esteem	Most Important	Important	Somewhat Important	Not Important
1. You have been chosen for committee work because of your expertise in different areas.	7	10	6	0
2. Other classroom teachers have high regard for the curricula you helped develop.	4	8	6	5
3. You are perceived by the teachers in your school as being very resourceful and they go to you when they require assistance with curricula.	1	10	8	4
4. Other people on the committee think you have good ideas and they display interest when you speak.	1	11	8	3
Totals	13	39	28	12

that are happening as a result of the committee. So, you wouldn't get very far!" It is worth noting that the majority of the teachers who valued these two indicators had participated in curriculum development committees. Perhaps support from central office and school administrators becomes more important to teachers after they have been involved in a curriculum development project.

A number of teachers did not feel that the indicator *You enjoy going to committee meetings because you are among people who are pleasant and easy to work with* was important. None of those teachers had participated in a curriculum development committee. By contrast, all of the teachers who had done so felt that this reward was important. Perhaps, after having worked on a curriculum development committee, teachers recognize that it does make a difference if committee members are congenial.

Relative Importance of the Indicators of Career Orientation

As noted in Table 6, the teachers valued most highly the indicator *As your name becomes known for the committee work you have done, you may have the opportunity to do more curriculum work in an area of your choice*. When these teachers were asked why they thought this indicator was important, their responses indicated that they equate career advancement with knowing the right people. One teacher commented, for example, "It's important for people to know who you are if you want to advance within the ladder." Said another teacher, "If you want to get ahead, it's important to know the right people and it also helps to know how the system works—who supports who and who doesn't."

TABLE 5
Relative Importance of the Indicators
of Organizational Climate

Category D: Organizational Climate	Most Important	Important	Somewhat Important	Not Important
1. You feel comfortable sharing the work of the committee with the teachers in your school.	3	14	4	2
2. Central office encourages the committee to pursue their work in the way they think best.	4	10	7	2
3. You feel that your principal is supporting the work of your committee.	5	8	5	5
4. You enjoy going to committee meetings because you are among people who are pleasant and easy to work with.	1	6	12	4
Totals	13	38	28	13

There were many other teachers, however, who were not interested in moving up in the educational hierarchy. As shown in Table 6, the teachers were least attracted by the idea that *The curriculum committee work you do has increased your chances of being offered a principalship or a consultant position*. These teachers indicated during the interviews that they enjoy teaching and are, therefore, content to remain classroom teachers.

Relative Importance of the Indicators of Extrinsic Rewards

The indicators of extrinsic rewards offered teachers recognition through a newsletter sent to parents, the inclusion of their names on the materials developed, release time for committee meetings, and extra pay. As indicated in Table 7, none of these indicators was attractive to the teachers.

Even release time, which could solve the problem of teachers incorporating curriculum work into their already busy schedules, was not attractive. The teachers felt that being released from their classrooms on a regular basis would be detrimental to students. As one teacher explained, “I find that I have difficulty leaving plans for a substitute teacher and I worry about my kids when I’m gone.” Said another, “I don’t like to be released from class because I enjoy teaching.”

The predominant attitude toward extrinsic rewards was that such rewards are nice but not a deciding factor in whether a teacher participated in curriculum development committees. This viewpoint was expressed by the teacher who, referring to the possibility of extra pay, remarked, “Sure, the extra pay would be great. We all love and could use extra money! But it wouldn’t be a good reason for getting involved.”

TABLE 6
Relative Importance of the Indicators
of Career Orientation

Category E: Career Orientation	Most Important	Important	Somewhat Important	Not Important
1. As your name becomes known for the committee work you have done, you may have the opportunity to do more curriculum work in an area of your choice.	3	11	5	4
2. You have increased your contacts with people at higher levels of the educational hierarchy.	4	5	9	5
3. Your work on the curriculum committee has enabled you to move into a more desirable teaching position.	2	8	4	9
4. The curriculum committee work you do has increased your chances of being offered a principalship or a consultant position.	3	2	9	9
Totals	12	26	27	27

TABLE 7
Relative Importance of the Indicators
of Extrinsic Rewards

Category F: Extrinsic Rewards	Most Important	Important	Somewhat Important	Not Important
1. You will be released from your classroom duties for committee meetings.	0	3	7	13
2. Your name will appear on the materials you helped develop.	1	1	10	11
3. You will receive extra pay for the curriculum committee work you do.	0	2	4	17
4. A newsletter describing the project and listing the names of the teachers involved will be sent home to parents.	0	0	3	20
Totals	1	6	24	61

Discussion

A major conclusion which may be drawn from this study is that certain variables are more likely than others to attract teachers to participate in curriculum development committees. Specifically, teachers will be willing to participate when they believe: (a) they will acquire knowledge and skills which they can use in their classrooms; (b) they will be actively involved in decision making which will affect their work; and (c) they will be able to offer their practical knowledge of students and classrooms.

It is also concluded that extrinsic rewards such as extra pay are not a deciding factor in teachers' willingness to participate in curriculum development committees, and that recognition of a teacher's expertise by administrators is more important to teachers than recognition by their colleagues.

If teacher participation in curriculum development committees is desirable—and the literature suggests that it is—it would be wise to design the committees in such a way that teachers will receive the rewards they desire. Four suggestions are made in this regard.

First, the findings showed that teachers want to grow professionally as a result of their participation. This suggests that the work of the committees be focused and planned in ways which will give teachers access to knowledge and ideas that they can use in their classrooms. It is important in this regard to select committee members and consultants who have had a variety of experiences in the field of education so that different perspectives will be brought to bear on committee work.

Second, active involvement in decision making is important to teachers. Therefore, they will need many opportunities to present their opinions and ideas, and their contributions to committee work must be treated with respect. Research by Duke, Showers, and Imber (1980) showed that teachers' desire to participate in decision making decreased when they believed participation was a mere formality or an attempt to create the illusion of teacher influence.

Third, teachers want to contribute to their committees their knowledge of students and classrooms. It is essential, then, that teachers be engaged in committee work which requires that kind of knowledge. In addition, the classroom orientation of teachers suggests that committee work begin with practical concerns and move gradually to a more theoretical level. Tom (1973) hypothesized in this regard that there may be a hierarchy of teacher needs which must be dealt with in curriculum work.

Fourth, extrinsic rewards such as extra pay may be offered *in addition to* the rewards discussed above. However, they are likely to be ineffective if they are offered *instead of* those rewards. According to the data, extrinsic rewards are the icing on the cake, but they do not offer the substance which teachers are looking for in curriculum work.

Teachers must perceive *at the time of recruitment* that curriculum committees will offer them the rewards they value. Accurate information about committee work could be disseminated to teachers through personal contact, group meetings, discussion at staff meetings, and descriptions in newsletters. The information could focus on the kinds of expertise the teacher can offer to the committee and the kinds of knowledge and skills that the teacher can expect to derive from participation.

Additionally, it may be wise for administrators to actively recruit committee members rather than call for volunteers, for this procedure would give teachers the recognition by administrators which appears to be important to them.

The reader is encouraged to reflect on these ideas and to develop others. The attempt is worthwhile because research indicates that participation in curriculum committees has a positive effect on a teacher's daily work. As one teacher in this study put it, "You just constantly have new and exciting ideas, and other people have things that you didn't think about before. So it really enhances the work you do in the classroom."

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PERSPECTIVES

The Crisis of Confidence in British Higher Education

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There is currently a major crisis of confidence in British higher education, largely as a result of government policies. This article seeks to explore the nature of the crisis, how it came about, and implications for other higher education systems. The changing pattern of higher education provisions is traced, and the "binary" division between public colleges and polytechnics and universities is analyzed. Because there is concern about the growth of central government intervention, there is also a section on the administrative and political framework of the country. Six areas of conflict between central government and higher education are identified as finance, internal efficiency, numbers and the future shape of higher education, teacher training, competition, autonomy and accountability. It is argued that new funding arrangements, demands for management efficiency, and accountability have changed and will continue to change the shape of higher education provision. Other countries could learn from the British experience.

Greater changes have taken place in the development of higher education in the United Kingdom (UK) during the past 20 years than at any time in the country's previous history. The traditional pattern of higher education, dominated by the élite, academically respectable, and research-orientated universities, especially Oxford and Cambridge, with a second tier of colleges of technology and teacher training colleges, was shattered and changed for all time in the 1960s. This was an age of optimism (Weiler, 1978), expansion, and experimentation, when new universities were created, new technological universities were developed, specialized polytechnics were opened, and teacher training colleges were upgraded. It was a period of rapid expansion in student enrollments in all branches of higher education.

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The economic crisis of the mid-1970s, together with the financial squeeze, growing unemployment, and the more fundamental shift in political philosophy since the Conservative government came to power in 1979 have all had an impact on higher education to such an extent that there is today a major crisis of confidence. A caring welfare society which perceived higher education as a right, even a necessity and not a privilege, has given way to a society—at least as viewed from government level—which perceives efficiency, improved management styles, market forces, and value for money as the supreme goals. The result is that there have been even more dramatic changes in higher education since the beginning of the 1980s. These changes have, so far, been more philosophical and managerial and less structural than in the 1960s, but all the current evidence would imply that the most radical shake-up that British higher education has seen in a generation is about to take place. The result is that higher education in all parts of the United Kingdom is in a state of uncertainty and crisis. Whether the crisis will be surmounted or whether the system that will emerge in the 1990s will be very different is a matter of conjecture.

This article seeks to explore how this crisis has come about, to examine some of the issues at the heart of the debate, and to draw some implications for other systems undergoing similar changes. At the outset, however, it must be stressed that the heart of the crisis is dominated by the fundamental question of what is or should be, the relationship between central government and institutions of higher education in a western democracy. Traditionally, the latter have valued as sacrosanct their academic freedoms, autonomy, and rights of criticism of the state and of government policies. Now they are beginning to realize not only that these widely held and carefully nurtured beliefs are open to challenge but that government is prepared to criticize these self-same institutions, especially the universities, is prepared to interfere with their long-established traditions, and is more than ready to apply the same criteria of efficiency, effectiveness, and accountability to educational institutions as it does to industry and other public sector institutions. Above all, government is prepared to ignore higher education in reaching its decisions. The result is that many academics have found themselves increasingly threatened and insecure. They are undergoing a crisis of confidence.

Background

The current crisis must be viewed against the backdrop of the traditional pattern of higher education, previous expansion, and reform efforts as well as the political and administrative framework of higher education.

The Traditional Pattern of Higher Education

Until this century higher education in the United Kingdom (England, Scotland, Wales, and Northern Ireland) consisted of universities and a small number of specialist research institutions. These universities had their roots in medieval Europe (Trevelyan, 1946) and although a few Oxford and Cambridge colleges were founded in the 13th century, and three of Scotland's ancient universities were founded in the 15th century,¹ the majority of the so-called civic universities did not open until the 19th century.²

The purposes of the "Liberal University" (Scott, 1984), as these universities came to be known, were the pursuit of knowledge and research for their own sakes, the pursuit of academic excellence, the fulfillment of the individual, the quest for truth, and, later, research associated with industry and employment. Freedom of speech and opinion were also hallmarks of British universities, even during periods of war, though

many academics believe now that these freedoms are under increasing attack from both the extreme right and the extreme left of the political spectrum.

Until the 1950s higher education in the United Kingdom (i.e., university education and colleges of advanced technology) was essentially selective, elitist, and academic. It was also surrounded by a number of myths, which have recently resurfaced in the debate, namely that universities have always been institutions of high academic learning and that they are essential for tendering specialist advice and opinions to government policy makers. However, Bell and Grant (1977) have shown that during the 18th and early 19th centuries not only was there corruption in the universities, with rampant nepotism and unfilled chairs, but the academic standards had sunk so low that universities had become little more than finishing schools for teenagers. They have also shown that they were largely irrelevant in the great political, social, and economic developments that were taking place at that time. The industrial and agricultural revolutions happened regardless of the universities, and many of the most important political figures achieved preeminence without having attended university. In spite of statements by the present government stressing the importance of the universities for Britain's future development (HMSO, 1987a, p. 1), many academics feel that actions belie this professed support and resent their loss of power and influence on affairs of state. A similar situation appears to have happened in Japan (Cummings, Amano, & Kitamura, 1979).

Nevertheless, by 1960 only 4% of the age group of 18+ was enrolled in any form of higher education. This was believed to be one cause of the country's poor economic performance compared with other industrialized nations. The result was that a major commission, under the chairmanship of Lord Robbins, was set up "to review the pattern of full time higher education in Great Britain. . . in the light of national needs and resources" (HMSO, 1963). The recommendations of the Robbins Report and the massive changes that took place in the 1960s were to transform the pattern of British higher education. Twenty years later that pattern is, once again, being reviewed.

Expansion and Reform

Not only do the 1960s mark a watershed in the history of education throughout the world as systems expanded rapidly (Coombs, 1968, 1985) but in the United Kingdom, as elsewhere in the industrialized world, there was a move away from elitist to mass higher education (Bereday, 1973; Neave, 1976; Organisation for Economic Cooperation and Developments [OECD], 1971; Trow, 1979) as universities changed their shape, role, and size, as they were expected to cater for the needs of society in a way not hitherto undertaken, and as new course structures, teaching methods, forms of assessment, and curricula were developed, and as new and different types of higher education institutions (e.g., polytechnics) were created. Within a decade the result was that the percentage of the age group enrolled in higher education had risen from 4% to 16%. Inevitably, however, as costs began to escalate and university campuses became more politicized (Gould, 1977), governments began to take a closer look at university affairs, at how they were governed and financed, at how far they were meeting the manpower needs of society, and at alternative forms of provision. It is perhaps not surprising that there was going to be a backlash. This began in the 1970s and has continued into the 1980s (Kogan & Kogan, 1983).

Following on from Robbins, not only were there philosophical changes but there were also major structural changes. The most fundamental philosophical change was that anyone acquiring minimum qualifications at the General Certificate of Education Advanced level (taken at 17/18+) should be entitled to enter university or other

institutions of higher education. Higher education was perceived as being beneficial to society and to the economy generally, and the social demand for places should be met. The philosophical assumption that there should be an upgrading of institutions—for example, colleges of advanced technology to the status of technological universities and teacher training colleges to the status of tertiary level colleges of education or higher education—was also accepted. However, the suggestions that there should be a separate ministry of higher education as in the United States and France, and that all higher education should come under the university umbrella were both rejected, especially by the new Labour government. Indeed, Mr. Anthony Crosland, the Minister of Education in Harold Wilson's first Labour government went out of his way to create what has since been known as the "binary system" of higher education—separate but equal development of different types of higher education, with the universities remaining relatively autonomous under the direction of a University Grants Committee (UGC, see below) and with technical further education colleges, colleges of education, and newly created polytechnics coming under the control of local education authorities (LEAs) and being closely linked with local industry and employment opportunities (Fowler, 1972; Department of Education and Science [DES], 1966).

The results of this public debate about higher education were that ten "new" campus-style universities, with novel ideas about student accommodation, management styles, forms of assessment, modular courses, and new academic structures were opened in different parts of the country (Perkin, 1972); a new style distance teaching Open University was established by act of parliament in 1969 using radio, television, and the postal services for teaching students in their homes (Ferguson, 1972); and 13 colleges of advanced technology were upgraded to university status. The number of universities doubled from 22 to 45. On the other side of the "binary divide" the 1966 White Paper *Higher Education in the Further Education System* (HMSO, 1966) and subsequent legislation led to the full scale development of 30 polytechnics (29 in England and 1 in Northern Ireland)³ created from colleges of technology, art, and commerce, with considerable academic freedom and financial autonomy, with close links with local industry and offering rival courses to those offered by universities. In Scotland there are no polytechnics, but the nearest equivalent, the central institutions, come not under local authority control but under central government control by way of the Scottish Education Department. The size of their impact on higher education can be seen from the enrollment figures. Although enrollments in the 1960s were relatively small, by 1983/84 there were 269,000 students enrolled in polytechnics compared with 292,000 students enrolled in universities (DES, 1985a). However, since 1979, over 75% of new enrolments have gone into the polytechnic sector (HMSO, 1987b). It is little wonder that there is now considerable rivalry between the polytechnics and the universities.

One other feature of the binary divide was the upgrading of teacher training to higher education status with colleges of education offering three-year certificate courses followed by a one-year B.Ed. degree (Dent, 1977). The James Report (HMSO, 1972a) advocated the abandonment of "monotechnic" teacher training institutions and their replacement by liberal arts type colleges very similar to those existing in the United States and Canada. During the 1970s many colleges of education therefore merged with colleges of art, commerce, or further education to form new institutes of higher education, but at least one third were closed down. The criteria by which they were forced to close or merge were seen as a growing intervention on the part of central government, and as the beginning of official scrutiny into the performance of

education at every level (DES, 1973, 1976, 1987c; Evans, 1985; Hencke, 1975; OECD, 1975). What happened in public sector teacher training has been seen as the trial run for government intervention into higher education generally (Hencke, 1978).

Political and Administrative Framework of Higher Education

Politically, England and Wales, Scotland and Northern Ireland form the United Kingdom of Great Britain and Northern Ireland and are represented in parliament at Westminster. Administratively, there are separate offices of state for the smaller constituent countries (e.g., the Welsh Office) whose secretaries of state have responsibility for all nonuniversity educational matters. Although Scotland and Northern Ireland also have their own small education departments, the Secretary of State for Education and Science, currently the Rt. Hon. Kenneth Baker, MP, has jurisdiction over all levels of education in England and Wales and over higher education in Scotland and Northern Ireland (Bell & Grant, 1977). The minister's influence and jurisdiction over all educational matters, especially those pertaining to higher education, have increased considerably during the 1980s (Hall, 1984; Winterson, 1986). Apart from its control over student numbers, financial allocations, teacher training, regulation, and recognition through the Department of Education and Science (DES) and its counterparts the Scottish Education Department (SED) and the Northern Ireland Department of Education, central government has until recently delegated most of its powers for administering and overseeing the education service to local education authorities (LEAs). In England these are made up of 39 county councils, 36 metropolitan district councils, 20 outer London boroughs, the Inner London Education Authority (ILEA) and the Isles of Scilly. In Wales there are eight county councils and in Northern Ireland there are nine. Scotland has nine regional councils and three island authorities (Inner Hebrides, Outer Hebrides, Orkney and Shetland) but their responsibilities are virtually the same (Fenwick & McBride, 1981; Jennings, 1977; Regan, 1977). In the field of higher education they are responsible for administering colleges of higher education and further education colleges and polytechnics (where these exist). They have no jurisdiction over the universities, though there is usually close cooperation between universities and local authorities.

Since 1982 there have been two coordinating bodies, the National Advisory Body for Public Higher Education (NAB) for England and the Wales Advisory Board (WAB), to advise on matters concerned with higher education in the public sector. They are national bodies working closely with regional advisory councils which represent the universities, local authorities, commerce, and industry as well as public sector higher education institutions. Their prime concerns are monitoring standards and student numbers, and course rationalization. However, under new government proposals their demise is inevitable.

The long-standing advisory body concerned with the university sector is the University Grants Committee (UGC). Established in 1919, it was designed as a buffer between the DES (then the Board of Education), the Treasury, and the universities (Mann, 1979). Until 1964 it received funds from the Treasury to disburse throughout the universities, but in that year the DES took over responsibility for its funding. Increasingly, far from being viewed as a buffer, the UGC has been perceived with hostility and suspicion as an agency of government playing a very important role in university affairs. There is much justification in this view for although in theory the UGC has complete freedom in allocating funds to the 45 universities and other institutions for which it is responsible, it works very closely with the DES in deciding on the number of undergraduates any university should have in a period of years. It also decides

on rationalization of courses and “advises” on whether a department should be opened or closed, makes recommendations on fee structures, and lays down guidelines for staff-student ratios in different faculties.

In order to counteract the growing power and influence of the UGC and to form a united front, the vice chancellors of universities came together to form the Committee of Vice Chancellors and Principals (CVCP) in the 1920s. This is an important body, not only because it allows free and open discussion between the principals of all the nation’s universities, but because it is a forum for thrashing out a united response to government policies of which it disapproved, and because it has become an important pressure group opposing the government’s political and financial pressures on the universities in recent years. Thus when the UGC produced its advisory statement on the purpose and future shape of universities for the government in 1984 (UGC, 1984) and the government followed this up with its own discussion document on *The Development of Higher Education into the 1990s* (DES, 1985b), the CVCP felt bound to respond. *The Future of the Universities* (CVCP, 1986) takes to task the government’s predictions about numbers, its perceptions about the role of a university in modern society, and the unrealistic demands placed on universities to raise standards and improve research within the constraints of resource cutbacks and minimum research funding. The CVCP and individual university vice chancellors have also reacted, sharply but positively, to the *Jarratt Report* on university administration and efficiency which itself established by way of preempting a government report (CVCP, 1985). Suffice it to say that the CVCP has become an active political body defining the rights and freedoms of universities against increasing political intervention.

On the other side of the “binary divide” the most important body is the Council for National Academic Awards (CNAA), an institutional body set up in 1964 with the intention of validating degrees and qualifications other than those awarded by universities and professional bodies. Not only did the creation of the CNAA allow many public sector institutions to develop their own degree courses, but it removed once and for all the universities’ power and influence over setting academic standards. Indeed the rigorous standards applied by the CNAA not only to the validation of courses but to the evaluation of institutions, staff appraisal, and curriculum design, leave many universities far behind. It is perhaps the very success of the CNAA in developing the concept of an institution constantly being prepared to undergo critical self evaluation and in pushing through academic courses of excellence that has created a sense of anxiety in many university circles.

Current Issues and Areas of Conflict

Turning now to the crisis of confidence previously alluded to, it was perhaps inevitable that, with the growing skepticism about education’s place in the economic development of a nation and with the growing attack on educational standards below tertiary level, higher education, especially the university sector, would soon come under the political searchlight. Since 1976 it is possible to identify six issues or areas of concern in United Kingdom higher education, all of which are linked with growing central government intervention and control, thereby calling into question the so-called autonomy in higher education. The six areas are finance, internal efficiency, numbers and the future shape of higher education, teacher training, competition, and autonomy.

Finance

Undoubtedly finance is at the heart of the current crisis, not only as governments seek to make higher education more effective and efficient, but as they have reduced their financial contributions in real terms.

The breakdown of the quinquennial system of budgeting has had disastrous effects. Until the late 1970s universities were given a five-year rolling budget, but for the past ten years they have had to operate on an uncertain annual budget which might not actually be known until part of that year's annual expenditure has already been incurred. Cutbacks of 4% were made in 1976/77 and have continued annually since then. New figures announced by the UGC in late 1986 for the next five-year period until 1990 suggested a cash increase from £1,716 million to £2,074 million but actually amount to a 5% per annum reduction grant in real terms. Coming at a time of reduced student numbers at undergraduate level, as government has placed limits on different universities in an attempt to raise standards by only allowing the best qualified youngsters to enter university (but not at the same time placing a ceiling on polytechnics and other advanced further education institutions), and when fee income has risen from 4% in 1975/76 to over 26% in 1985/86 and is therefore an important ingredient in the financial equation, universities especially are being forced to make financial savings and/or to raise additional revenue.

The most dramatic attempt to make savings has come through staff cutbacks. Between 1981 and 1984 university incomes from government were reduced by 11% and universities were told that they had to lose 3,000 academic staff and 4,500 ancillary staff (secretaries, technicians, laboratory assistants, etc.) especially in those areas not considered by government to have prime economic importance. According to a report from the National Audit Office, government planning went awry (*Economist*, 1985). Less than 3,000 ancillary related staff left while nearly 4,500 academic staff, especially in engineering, science, computer science, and technology, those academic departments that government wished to protect, took voluntary redundancy or early retirement and enhanced financial benefits before being reemployed elsewhere on far higher salaries. The cost to the government in terms of redundancy money has been in the order of £238 million.

The cost to staff morale is immeasurable, since those remaining within the system feel that their role and status have been devalued. Promotion prospects are few. Senior posts have been frozen. Salary erosion of the order of 39% *vis-à-vis* comparable professions since 1979 has meant that it has been increasingly difficult to recruit staff of high calibre and the right qualifications. Industry, commerce, the civil service, and the armed forces have benefited at the expense of the universities. The end of the tenure system of any new faculty appointments and short-term contracts for all new staff make it very difficult to attract new talent. The long-term impact on research, teaching, and creative ideas can hardly be measured. Although in the early part of 1987 the government relaxed its rigid position on promotions and was prepared to raise university salaries quite substantially (24% over a 15-month period), especially at the higher grades of senior lecturer, reader, and professor, it remains to be seen whether the flow of good academics away from the universities can be stopped. Financial constraints, nevertheless, remain tight. Universities, therefore, are having to resort to other, often petty, means of making savings. These range from reusing envelopes and recycling waste to cutting down on telephone and heating bills, to increasing staff-student ratios, cutting out whole departments and not filling vacant posts. Where universities traditionally had a staff-student ratio of 1:10 it is now 1:14.9 in many departments. Polytechnics still have a ratio of 1:11.5, but they have not yet felt

the same government pressures as universities because they are perceived to be more closely associated with industry and to be more efficient. The government argues that between 1980/81 and 1986/87 unit costs fell in the universities by only 5% compared with 15% in polytechnics and local authority colleges (HMSO, 1987a, p. 15). However, the universities argue that their costs are so much lower because of hidden overheads and LEA subsidies.

Theoretically, raising additional revenue is a more positive approach than cutting back on expenditure, but if this involves selling off real estate, buildings, agricultural land, or university art treasures, many believe that this not only betrays the prudent management of the past but is only a short-term solution to deep-rooted problems. For many years now, a number of universities have offered facilities and hostel accommodation for conferences and holiday flats in return for income. They are now being encouraged to tout for business at commercial rates, as the polytechnics have done for many years, selling consultancies, offering joint industrial research ventures, attracting research funding or funding from overseas governments in return for tailor-made courses. Instead of being institutions of academic research and teaching, untainted by the commercial dimensions of society, universities have found themselves thrust into the marketplace—but with considerable disadvantages. Fees illustrate this point.

Fee income is vitally important to all universities as it is to all higher education. Over 95% of undergraduates have their fees paid from public funds (by LEAs or by central government), but with the reduction of numbers at university imposed by government, and with penalties imposed against universities if they do not adhere to their target numbers within a reasonable margin of error, alternative approaches have had to be considered. Here again, however, universities find themselves in a dilemma. Government is discussing the replacement of the grant system with loans, a mixed loan system, or with vouchers (Atkinson, 1983; HMSO, 1987a). The impact of any of these options is unpredictable. The only certainty is that universities are going to be competing even more unfavorably for students whose overall numbers may decline anyway, or who will choose public sector institutions because they are far cheaper.

The most obvious increase in students must be at postgraduate level and from overseas. Since 1977, however, the discrepancy between home and overseas student fees has been a bone of contention (Williams, 1981; Williams, Kenyon, & Williams, 1987). The policy of “full cost” fees imposed by the present government means that in 1987 a postgraduate overseas student will be paying about £3,500 for an arts or social science course or about £6,000 for a medical science course, twice as much as for home-based students and infinitely more than at most universities in other industrial nations. Moreover there has been a decline in indigenous postgraduates because of their reluctance to fund the cost of increasing fees from their own pockets.

Perhaps the biggest anxiety facing universities is the reduction in the number of research grants. The budgets of the Economic and Social Research Council, the Science Research Council and the Medical Research Council have all been reduced considerably. The research councils' grants have increased cash terms from £575 million in 1981/82 to £604 million for 1985/86, but it is estimated that because of inflation and the escalating costs of research, especially in the medical and scientific fields, that in effect this amounts to a steady erosion of research funding. The decline in research grants to universities means a reduction in research carried out and in the ability of universities to attract staff of outstanding or international calibre. Many industrial concerns are more likely to undertake their own research, using their own staff and premises. Universities are having to prove to government and to industry that their research is of economic value and importance.

Polytechnics have had far fewer constraints placed on them in their quest for additional students. They have marketed their courses to attract large numbers of overseas students, they have been more flexible in their offerings to part time students, and in attracting mature students, especially for in-career vocational education such as the Professional, Industrial, and Commercial Updating (PICKUP) program. The latter are short courses offered for those working in business and industry. While the universities have to some extent been involved, the public sector colleges through NAB and WAB have used the bulk of the £6 million "pump-priming" money made available by government.

What is concerning the universities now more than anything, however, is the government's proposals to abolish the UGC and to replace it with a new funding body, the Universities Funding Council (UFC, DES, 1987a) directly under government control and to replace the existing system of UGC grants with a mixed system of grants and contracts whereby individual departments would have to tender for grants on the basis of research projects (DES, 1987b). Any financial shortfalls would have to be made up by touting for commercial business from the private sector. Thus the traditional rules of the game whereby universities expected to receive the bulk of their income from central government have been, and are being, subtly but forcefully changed.

The public sector also is feeling the winds of change. From April 1989 NAB and WAB will cease to exist and the polytechnics and other public sector colleges of higher education will cease to be administered by and funded through LEAs. Instead a new Polytechnic and College Funding Council (PCFC) directly under central government control will be responsible for coordinating and overseeing the majority of public sector institutions (DES, 1987c).

Although the new funding arrangements are part of an attempt to restructure higher education finances, they are also part of an ongoing conflict between central and local government and a further example of growing centralization over key policy issues. The result is that British universities and colleges are turning more and more to marketing their offerings in a professional manner both at home and overseas, offering tailor-made courses at a cost that brings in a profit, so that if necessary additional personnel can be brought in, or offering paid consultancies to firms or to overseas governments and foundations. The result is that the liberal university of 20 or 30 years ago is rapidly becoming a thing of the past as modern technocratic universities respond to market forces and adopt the approaches of the marketplace in a vigorous manner. How this will affect their development and philosophy the next decade will reveal better. Some vice chancellors and polytechnic principals regard the management of their institutions on contracting budgets in times of great social and economic change with misgivings; others accept the challenge with enthusiasm.

Internal Efficiency and Administration

Closely linked with the financial crisis is the crisis of internal management and administration. Here again the universities feel that they are disadvantaged *vis-à-vis* the public sector institutions the other side of the binary divide. Not only do a number of vice chancellors believe that there has been unnecessary waste and maladministration in polytechnics and colleges of higher education because of split sites, top-heavy administrative hierarchies, and bureaucratic structures, not only do they know that there have been several inquiries into financial malpractice, but they believe that the better cost ratios in the public sector colleges come about largely because many of the overheads are hidden and because LEAs enable them to compete for degree level

students by deliberately subsidizing fees. Above all, they believe that universities have been unfairly singled out by government for public criticism.

Although government established NAB and WAB as coordinating bodies for all public sector higher education in an attempt to monitor courses and to develop closer liaison with industry, university vice chancellors would argue that the UGC exercises a far more stringent control over their affairs than has ever been exercised by NAB or the LEAs over the polytechnics and colleges of higher education. Not only does the UGC have the right to exercise control over student numbers at each university, allocate grants to each university, and even insist on the closure of individual departments if it believes there is unnecessary duplication, but in the spring and summer of 1986 it undertook a review of all university departments throughout the country in an attempt to rank them as excellent, above average, average, or below average in terms of research output. It has been argued that this exercise was of doubtful value and the research methodology was highly questionable and inapplicable to the social studies/humanities departments. It is felt that the long term effects will be to jeopardize certain departments which will be in danger of attracting fewer students or less research funds now that the ranking has been made official. Vice chancellors rightly argue that no such inspection or evaluation has been made of polytechnics and also, with some justification, argue that the process of rationalization has been going on for some years. London University, for example, has been undertaking its own rationalization for the better part of a decade. Directors of public sector institutions would respond that CNAA validation implies constant monitoring and inspection and that they have tightened up on efficiency. However, there would seem to be little doubt that government does intend to press ahead with its ranking of institutions and/or departments within them. Thus universities as a whole, or specific university departments with a proven track record for high quality research, are more likely to receive better funding than those which are predominantly teaching institutions.

Where universities would find it hard to rebut criticism is on the grounds of staff contracts, tenure, and accountability. Staff contracts in the public sector are far more specific over hours of work and time to be spent on the premises. Most university contracts are far more open-ended on this, believing in academic freedom and the integrity of staff to honor the spirit if not the letter of the contract. But while the majority of university staff still have tenure, this is far less widespread than is generally believed and most new appointments in the past decade have been of limited tenure only. However, it should be pointed out that university staff salaries have been consistently eroded *vis-à-vis* all other groups of teachers since 1976/77 and that there is a widespread belief that they have borne the brunt of political antagonism against higher education. As already mentioned, the government has negotiated an increased pay settlement for the period 1986-1988 but the damage already done to staff morale will not easily be remedied.

Nor have public sector institutions been advised to tighten their administrative structures quite as the universities have. The Oakes Report (HMSO, 1978) called for greater rationalization and coordination in the public sector but little that is practical has yet developed from this. However, many polytechnic principals have argued that they would like to be funded and controlled by central government, thereby avoiding the political and administrative delays of local authority management (*Observer*, 1987). They will, therefore, welcome the introduction of the PCFC, though whether they will welcome the stricter fiscal management that will be imposed on both polytechnics and the universities remains to be seen. The *Jarratt Committee Report* (1985), which was commissioned by the CVCP to explore ways of improving efficiency

and management structures in universities in the light of growing political criticisms, has already called on the universities to exercise greater financial control over their courses, to make individual departments more cost effective, to introduce business management techniques into all areas of university administration, to streamline the committee structures, to develop rolling plans and evaluation, and to introduce arrangements for staff development, appraisal, and accountability. Many academics have rejected the Jarratt proposals as unworkable in universities; others have given a qualified welcome. Either way, all vice chancellors and senior academic staff are taking the report seriously, knowing that if they do not, government will impose its own solutions.

Certain areas of improvement are undoubtedly possible. Individual departments could be given greater responsibility over departmental finance, over marketing and recruitment, all of which is happening in many universities already, but where the government imposes fee levels and restricts budgetary control and where there is tenure, or there are limited opportunities for promotion of able staff, or there is inadequate control over forward planning or staff development, and where government has made it quite clear that it wishes to support certain faculties and departments (e.g., engineering, science, technology, computer studies, and information technology, etc.) at the expense of others, it is hard to see that Jarratt's managerial proposals can work effectively.

It is also hard to see that universities can be managed like multimillion-pound businesses unless they have greater control over the price fixing of courses and over staff salaries. Where there have been semi-independent departments in universities financed separately from normal university departments they have proved highly successful. It may well be that if the Conservative government remains in power until the mid/late 1990s, some universities will become private and truly autonomous but this still remains highly speculative. At present, only the University of Buckingham, established in 1973, though not given a royal charter until 1983, fits the category of independent and autonomous.

Numbers and the Shape of Higher Education

The peak year for live births over deaths was 1965 when 823,000 children were born. By 1975 that figure had dropped to 526,000. The implications for higher education have been serious, and one of the prime concerns of university administrators during the 1980s has been that of student numbers. Between 1979 and 1985 the CVCP calculated a 35% drop in the number of applicants in spite of the "bulge" passing through upper secondary level. By 1989 it is calculated that there will be an even greater decline. A glance at the numbers of enrollments helps to clarify the position. In 1938/39 there were 50,000 full-time students enrolled in universities. By 1983/84 there were 292,000 in public sector institutions (DES, 1984).

The issue of student numbers was raised by the DES in a discussion document entitled *The Development of Higher Education into the 1990s* (1985b). This mentioned a 10% increase in student numbers from 280,000 to 310,000, but it recognized that there would also be a significant increase in public sector enrollments with no accurate predictions of where 18-year-olds might opt to go. Social demand planning is far less accurate than manpower planning. The DES recognized the uneven annual forecasting because of uneven annual flows and it suggested five possible solutions for "tunneling through" without a massive increase in finance. In the end these suggestions proved to be little more than academic since government imposed its own solutions—universities were to accept a smaller proportion of students, as the figures

already mentioned reveal, and were to allow staff-student ratios to rise. With the growing difficulties of attracting overseas students and mature inservice students because of government imposed fee increases, university finance officers and admissions officers have been faced with growing uncertainties and difficulties. There is no easy solution in the years immediately ahead. However, what is becoming apparent is that in its concern for rationalization and efficiency the present government is beginning to see a blurring at the edges of the binary divide. In 1984, the New University of Ulster and Ulster Polytechnic were merged into the University of Ulster. Several universities, notably East Anglia, Durham, Exeter, and Warwick have absorbed nearby colleges of education. In Wales there are plans to rationalize teacher education across the binary divide, and in Cardiff a new University of Wales at Cardiff will be created by merging the University College and the University of Wales Institute of Science and Technology. How far this transbinary rationalization will go remains to be seen, but once the precedent has been established it may not be easy to stop.

Teacher Training

It is perhaps because of the truism that every education system is only as good as its teaching force that of all areas of higher education in the United Kingdom, teacher education has been the most under the spotlight in recent years and has undergone—or is undergoing—the most radical change. From 120,000 teachers in training in 1971/72, the number fell to 29,000 by 1985/86. Inevitably this has led to structural changes, as previously mentioned, but the declining birthrate, along with government concern for academic standards, has led to some radical rethinking about the place, shape, and content of teacher education.

It is in the latter area that government has become increasingly involved. Apart from curriculum issues, more official documents have been issued relating to teachers and teacher education in the past few years than on any other single educational topic (DES, 1980, 1983a, 1983b, 1985c, 1986). Since 1980/81 all teachers in training, whether in colleges of higher education, University departments of education (UDEs), or polytechnic departments of education (PDEs), have been awarded degrees rather than certificates. Gradually teaching will become an all-graduate profession. Thus from colleges students now receive a B.Ed. degree, while at a polytechnic or university department of education they receive a Postgraduate Certificate in Education (PGCE) after an initial specialized subject degree.

PGCE courses have undergone considerable changes in recent years (Alexander & Whittaker, 1980). Not only has there been a decline in the teaching of educational disciplines (psychology, philosophy, comparative education, history, sociology, etc., Watson, 1982; Watson & Williams, 1984) in favor of more pragmatic classroom focused work, but the government is insisting on a longer training year from 1987/88 onward—36 weeks instead of 32—closer liaison with schools, and for all training staff to have “recent and relevant” experience in the school classroom so that theory and practice become more closely interrelated and in the hope of improving the quality of the teaching profession.

Government has also insisted on the right of inspection of all teacher education institutions and of accreditation. The Council for the Accreditation of Teacher Education (CATE) was established in 1983 by the then Secretary of State for Education Sir Keith Joseph in an attempt to ascertain what was happening in teacher education as well as to monitor the quality of the teacher training offered. CATE was modeled on the American National Council for the Accreditation of Teacher Education (NCATE), an agency of the American Association of Colleges for Teacher Education

(AACTE). Complaints about CATE from the different sectors of teacher education have focused on the fear of uniformity and control, charges flatly denied by government, and on resentment that many of the CATE accreditation teams are not educationists, let alone teacher trainers. However, so-called “CATE criteria”—“recent and relevant” teaching experience on the part of staff involved in initial teacher training, approval of course length and content, classroom management techniques, standards of professionalism among staff—have all had a profound effect on all teacher training institutions. Moreover, there is now a reluctant recognition that, unless they have been inspected by HMI and accredited by CATE, institutions will not be able to undertake any recognized form of teacher education by the late 1980s. This is a not unusual situation in many countries, but in the context of the United Kingdom it smacks of growing central government control and interference, particularly as until the mid-1980s HM Inspectorate had no automatic right of entry into universities.

UDEs have also felt that they have been pressured externally by DES, HMI, CATE, as well as LEAs, in a manner that no other university departments have. There is also some concern that initial teacher education could be removed from the university sector altogether and transferred to public sector colleges of higher education or to polytechnics. The UDEs would then be left with advanced higher degree work, research, and some inservice training. This is the normal pattern in Scotland, Stirling University being the exception, but it would be resisted bitterly in England and Wales on the grounds that PGCE students from UDEs have a better employment record than do B.Eds. from colleges, but more especially because of another major area of uncertainty—INSET (In-Service Education of Teachers). For the past 40 years following the McNair Report (HMSO, 1944), LEAs have seconded teachers on full-time inservice training courses run by their own institutions as well as by UDEs, so that they may work for a higher degree, usually a taught diploma or master’s course. Under new government regulations (DES, 1986) this system ceased to operate from 1 April, 1987. Moreover, government has established 22 national priority areas for training and has thrown the onus onto the LEAs, and not higher education, to draw up programs for INSET which will involve far more teachers across the primary/secondary level divide in school based or classroom focused training. This is supposed to be cost effective and to have the maximum impact on the local school system in the shortest possible time. However, it does mean that training institutions have lost, and will continue to lose, students.

The whole area of teacher training is thus in a major state of flux, but UDEs are the institutions that feel most threatened. They recognize that they can no longer rest on existing working patterns and assumptions. They too must compete in the marketplace in a way that they have not hitherto been used to.

Competition

Changes in INSET provision are but one example of the growing competition between tertiary level institutions. Not only are *all* teacher training institutions involved in advanced degree work competing with each other for a decreasing number of full-time students, but they are also competing in their ability to offer short-term courses, consultancies, and “packages” for customers such as LEAs. The idea of tertiary level colleges marketing their wares is not uncommon in the United States where there are a large number of private institutions competing with public state universities and colleges (Grant, 1985; King, 1979), but in a system such as that of the United Kingdom where most tertiary level education is essentially financed from public money (DES, 1985a; Atkinson, 1983), the idea of marketing is both new and challenging. Teacher

education, however, is only one area where competition is developing.

With the proliferation of different types and sizes of tertiary institutions during the past 10 to 15 years, rivalry and competition were inevitable. The merits of different colleges, courses, their pastoral care, or simply their location, tradition, and reputation have all been used to win over students (Chan, 1987). Institutions have been improving their brochures, advertising literature, and marketing procedures for some years. A number of universities and polytechnics have appointed marketing managers during the past few years with the express purpose of devising ways and means of attracting more students, research funds, and offering special courses, especially to overseas governments from Third World countries. A sense of business entrepreneurship and frenetic activity has affected a large number of tertiary level institutions to such an extent that there has been growing concern that the quantity of student enrollments is more important than the quality or the scholarship. There is a fear that the leisurely academic way of life is being sacrificed on the altar of financial necessity. An announcement on November 6, 1986 by the Secretary of State for Education that education is to receive an additional £186 million in the financial year 1986/87 with an additional £95 million going to the universities may help to restore the balance. However, there is no doubt that the perceptions and attitudes of college and university staff in the mid-1980s is fundamentally different from that of a decade earlier and that a sense of uncertainty about future directions is affecting staff morale and research output.

Equality, Autonomy, and Accountability

There are other issues concerning UK higher education which are of a more philosophical than administrative or political nature. In the heady days of the expansion of higher education in the 1960s it appeared that there would be greater equality of opportunity for all qualified students to enter higher education. After all, this was the trend throughout industrial Europe (Halls, 1985). Institutions felt that they had a degree of autonomy over who they accepted and over what courses they offered. With no attempt at manpower planning they believed they could begin offering courses in areas hitherto not recognized as typical at that level—for example, accountancy, social studies, management studies. However, as criticisms in the 1970s began to be leveled at declining academic standards and the growing politicization of many courses and departments (e.g., Gould, 1977), more conservative elements began to consider a return to the more elitist period of before the mid-1960s. One of the chief architects of this movement was Sir Keith Joseph. His concern was that the search for truth had been subordinated to the development of vocationally relevant courses and that, as a result, universities had betrayed their trust. He was also convinced that many students studying at university would be better occupied in more technical and vocational courses offered by polytechnics and other public sector institutions (Joseph, 1974). It was this kind of argument that prevailed in the Conservative Party and led to the cutback in university enrollments in the mid-1980s, a time of “bulge” among school leavers. As a result the government has argued for a more restricted entry to universities especially, but to higher education generally, except in vocational, technical, and scientific courses, believing in the dictum of the International Bureau of Education (IBE, 1971) that “of all countries in the world, the smallest number of dissenting students are to be found in those which practise planning prior to selection.” It has, however, also recognized the need to retrain adults in work and is encouraging the PICKUP program, the open college, and new technology centers. As with the new INSET proposals, the courses offered are all of short duration.

Closely linked with the shape of higher education are the concepts of autonomy and accountability. How far should universities and polytechnics be accountable for their courses and actions to government, LEAs, students, and employers, especially in the light of political and employers' criticisms? The *Jarratt Report* (1985) is certainly of the view that there should be greater accountability, though how this should be expressed is less clear. However, how far should universities conform to state plans of government requirements, and how far should staff be free to stand back and be critical of society and the body politic? How far should government be allowed to intervene in the running of institutions and to influence the type, or even the content, of courses? Traditionally, those involved in higher education in the United Kingdom have felt that they have had a dual role, of cooperating with government through research councils and through academics servicing numerous government committees and councils, but at the same time they have seen part of their responsibility as standing back observing, researching into, and commenting on society and government policies as and when they have seen fit. Many sense that not only is such a position of autonomy in jeopardy, but they argue that because funding for higher education is largely from government sources, higher education academics should be more accountable for the use of those resources.

In the universities many academics believe that pressures for accountability have eroded institutional autonomy, and government intervention, even control, has been steadily increasing in recent years. A Parliamentary Report of 1972 had showed that "the UGC already exercises considerable control over universities' spending and is in fact operating in many areas in a way and to an extent comparable with that of a department of state." In fact the Report went on to say that "the control the UGC exercises over the allocation of university capital expenditure is quite as great as that of the DES in the public sector operating through the Secretary of State" (HMSO, 1972b). This control has grown enormously in recent years with the UGC forcing through rationalization, cutting waste, closing superfluous departments, and exercising punitive financial action against those universities which failed to observe UGC guidelines over student numbers. Perhaps the UGC action that has created more furore and anger than any other, however, was the attempt at judging individual departments on a national scale as "outstanding," "better than average," "above average," and "below average." Many have called into question the entire exercise, but the official publication in May 1986 of the UGC ratings of the various departments up and down the country, followed shortly afterward by the financial allocations for 1986/87 to the different universities, resulted in dismay and despondency throughout the university world. Many have also felt outraged at the judgments and have been at pains to prove the UGC wrong. A recent report by Lord Croham, if acted upon, might ease the relationships between the universities and the UGC and remove some of the anger felt by academics over the 1986 assessment exercise, for, while recognizing that "the UGC is not outside the machinery of government but part of it," Croham proposed that the UGC should become a council, not a committee, with greater independence but at the same time, with greater accountability to parliament, industry, and government. It is also proposed that it should have greater autonomy and a more clearly defined role, and that it should reconsider the existing structure of salary negotiations. It also argued that teaching as well as research should be taken into account in any future judgments on universities' performance (HMSO, 1987b). It is not yet clear how far the newly proposed UFC (HMSO, 1987a) will follow these recommendations. Indeed many academics view the proposals with grave misgivings.

Interestingly enough, the Oakes Report on public sector higher education (HMSO, 1978) sought to strike a happy balance between national needs and local provision, between central government and LEAs, while at the same time providing for governing bodies that are accountable to the public. Although the NAB and WAB were set up as coordinating bodies, their intervention has been far less noticeable than that of the UGC. It is perhaps this very lack of coordination and direction that has worried many polytechnic principals and has led central government to propose its new PCFC (DES, 1987c).

While academics across the binary divide have tried to fight back, arguing that accountability and efficiency are eroding basic academic freedoms, the fear is that since, as the permanent secretary at the DES once observed, universities no longer carry political weight in Westminster, the counterattack may be too little and too late.

Conclusions and Implications

This article tries to explore the changes and developments in higher education in the United Kingdom during the past two decades. If it ends on a pessimistic note, this is because the crisis of confidence in higher education has been deepening with alarming rapidity in the past few years. There are many who fear that the liberal traditions of United Kingdom higher education have been irretrievably undermined as a result of the growing politicization of staff and courses as well as from increasing government intervention. There are others, however, who regard the changes as inevitable and who view the prospects of marketing courses seeking greater efficiency in institutional management, developing new areas of knowledge, without in any way diminishing the standards of scholarship, as exciting and challenging.

That some form of higher education will continue is not questioned. What is questioned is whether its structure or its freedoms will be recognizable a decade from now. The system has not yet collapsed under the stresses and strains of the past decade, but the crisis of confidence in what is expected of higher educational institutions, especially the universities, has been deepening as the 1980s have progressed.

Other western societies whose higher education systems are faced with similar dilemmas of rising costs and dwindling resources, and with growing pressures from central government to go out into the marketplace to sell their wares, might do well to learn from the British experience. In some ways it is part of the Thatcherite experiment of the early 1980s in trying to make universities more responsive to the economic and technological needs of a modern industrial society. In some ways, however, it is simply part of a changing perception about the place of higher education in a modern society, whether it should be an arm of government or whether it should be free to criticize government policies without fear of political recriminations. Many of the issues and problems currently being faced in the United Kingdom are to be found in other societies. Whether their attempted solutions will be the same remains to be seen. One thing is certain, however: The pattern of higher education and the attitudes of academics, administrators, and politicians will be markedly different in the 1990s from those which prevailed the 1960s and 1970s, and certainly from the more genteel age of the 1950s. The crisis and conflict of the 1980s must, if nothing else, ensure this.

Notes

1. It is often forgotten that Scotland's four oldest universities, St. Andrews (1411), Glasgow (1451), Aberdeen (1494), Edinburgh (1583) predated all but a few Oxbridge colleges by nearly four centuries.
2. The civic universities, like Manchester, Liverpool, Leeds, Sheffield, Newcastle, were so called because of their close links with the new industrial cities. They are sometimes also called "red brick" because that was the major building material used.
3. Ulster Polytechnic was the first polytechnic to close when in 1984 it merged with the new University of Ulster. All the polytechnics are now in England.

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Intelligence: A View From Neuropsychology

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The measurement of children's intelligence has historically been based on a unitary conceptualization of intelligence. This unitary, general representation of children's thinking does not take into account the many different abilities and interests which children have. Unitary measures of intelligence also tend to be culturally and socioeconomically biased. Das and his associates have developed a multidimensional system for measuring intelligence. This system is based on Luria's neuropsychological model of brain functioning and emphasizes thought processes (basic coding, attention, and planning) rather than acquired knowledge. With this system, measurement is made of the different ways in which children organize their thinking and are able to sustain their attention and solve multistep problems. The use of this multidimensional cognitive assessment system in studies of children with learning difficulties and neurological problems has revealed that these children may have specific patterns of abilities associated with their difficulties. These studies have also suggested promising remediation procedures to be used with these different children. It is necessary, however, even with this multidimensional system, to take into account social and cultural factors in order to fully represent the intelligence of children.

Early research into intelligence was at best empirical, not rational. At worst, it was based on somebody's notion of what intelligence should comprise. Let me explain.

Around the turn of this century, a French psychologist, Binet, constructed an intelligence test. His purpose was simple: How to sort out schoolchildren who may have a weak ability for schoolwork so that such children can be helped. As years have passed, Binet's intelligence test has been used to hold back children, depriving them of quality education. Obviously, this is an abuse of an intelligence test. The test was revised for American children and is still being used. The fourth revision of Binet was published last year. Its original character has remained unchanged; it still provides a scale or only one dimension of merit on which children are placed, one general factor of intelligence. This is precisely its problem—should we rate children on one dimension, pronouncing some as low, some as medium, and some as high? There is little justification for doing this when we know that children have a variety of strengths and weaknesses.

Dr. Das received the annual University of Alberta Research Award in 1987. This article is based on his public address when accepting the award. He continues to serve as Director of the Developmental Disabilities Centre and as a professor of educational psychology.

What is wrong with placing everyone in one scale of merit? First of all, how does one determine what is meritorious, the one thing which is considered as meritorious? This itself becomes a problem because in any culture there are several indications of merit. Two of these relate to academic merit; these are the ability to grasp complex and abstract relationships. Even if we accept this narrow description of what is meritorious, and ignore such materialistic abilities as entrepreneurship, or spiritual ones such as the ability to achieve compassion and inner peace, we need to produce a commonly acceptable notion of what is abstract or what is to be regarded as complex. These narrow concepts too are subjective in each subculture. In the subculture of schools and colleges in our country, we may be able to find acceptable descriptions of these meritorious characteristics. Even then we will have a problem. The problem is brought about by previously acquired knowledge.

We need a good base of knowledge for abstraction and to grasp complex relationships. Knowledge is specific; for a physicist, what may be relatively concrete and simple is certainly difficult to conceptualize for a lay person without the knowledge of physics. Try to explain to a lay person Newton's three laws; he or she will find it to be quite abstract and complex. So we cannot do away with educational experience in testing for academic intelligence, and educational experiences can vary by fields of study as well as by opportunities for getting quality education.

When an IQ test like Binet's is given to schoolchildren, we ignore these variations and assume that all children have an equal interest in all fields or disciplines, and that they have had the same opportunity of acquiring that knowledge. Therefore, if children do poorly in the test, it is not regarded as an absence of knowledge; rather it is a proof of poor *ability*. This ability is *general*. We can already see why doing well in school is predicted by IQ.

The questions in the IQ tests require the child to know many things that are taught in school, and are "general knowledge" among his or her schoolmates. That is one of the main reasons why children's IQ and their school performance have a high degree of correspondence. Those who do not do well in school, or what is worse, those who cannot go to good schools, are the same children who usually fare poorly in IQ tests.

Because of such criticisms about intelligence tests, some researchers are looking at alternatives. Intelligence, they argue, has to do with how we process information, not so much *what* information we have. How we think when we have obtained information through our sense organs is the basic concern of intelligence. Thinking is the main function of the mind—this was suggested by logicians in ancient India who counted the mind as our sixth sense. As eyes have evolved to see, ears to hear, and so on, the mind has evolved as the organ of thinking.

If we agree that mental functions have a base in some structure, the most likely candidate for the structural base must be the brain. By studying the functions of the brain, and relating these to intellectual activities, we can learn a great deal about intelligence. Essentially, this is the approach to intelligence I have adopted. My students and I, and colleagues at the University of Alberta have been working on a model of understanding intelligence by mainly looking at what has been discovered by clinicians who have made insightful observations on patients suffering from injury to the brain, both to the top and the base of the brain. We ourselves have not done those clinical observations, but have depended heavily on the work of some outstanding clinicians.

Our major resource is the work of Luria, a Russian neuropsychologist, who practically created this new hybrid discipline. My first paper in this line of investigation in regard to intellectual or cognitive functions was published in 1972; in 1976 I obtained a Canada-USSR exchange fellowship to visit Professor Luria in Moscow. The model of intelligence which we have developed here at the University of Alberta is sometimes referred to by American researchers as the Luria-Das model (see Das, 1973; Das & Varnhagen, 1986, for details of the model).

Let me now give a brief description of the Luria-Das model; there will be more of Luria than Das because the background of the model has to be presented first.

The functions of the brain which relate to cognition are threefold. The front part of the brain is engaged in making plans, decisions, judgments, and evaluations. The back of the brain is responsible for analysis and synthesis of information and then for arranging information into a *simultaneous array* or in *sequential order*, as required. But information cannot be processed and plans cannot be made unless we are interested, attend to incoming information, and mobilize our attention to make plans and decisions. This basic function is at the base of the brain. The three functions are of course interrelated; they have to depend on each other because the brain acts as a whole. Mental activity is the total outcome of the brain functions, although we can distinguish its different parts.

To better understand how the three functions—arousal or attention, information coding, and planning—come together, let us consider an apparently simple activity: drawing a circle. A certain amount of arousal is necessary for the movement of drawing, and attention should be focused on the muscles which are involved in the movement. Without appropriate arousal and attention, I won't even begin to draw a circle. Next, I should be able to process the information obtained through sensory feedback as I am drawing the circle—Is it going in the right direction? Does it have the correct spatial orientation, and am I making the appropriate movements in the sequence? Finally, every voluntary movement requires a precise, stable plan. The regulation of arm, wrist, and finger movements to produce a circle involves planning. The frontal lobes of the brain are responsible for resulting movements. I have watched a physicist in Luria's clinic try to draw a circle; the physicist had a tumor removed from his frontal lobe. He held the pencil properly and he wanted to draw the circle, but what he produced was a set of random movements; then he finally gave up and was visibly embarrassed.

We have now constructed a number of tasks which would show how children and adults use their planning, attention, and information processing. With the help of these tasks, we have been able to examine learning disabled individuals who have difficulty in reading or arithmetic, in spite of normal or superior intelligence. We have also tried to understand the type of intellectual processes in which different groups of mentally retarded individuals may be deficient. We have begun to examine cognitive processing in special groups of medical cases such as those suffering from neurofibromatosis, multiple sclerosis, and so forth.

Examples of these tasks are given in the appendices. It will be clear that the task does not depend on school learning to a great extent, and that it tells us something about the processes used by different types of children in doing tasks. The first of the two tasks (see Appendix 1) requires that the child cross out those letter pairs which are identical, such as NN, TT, and so forth. We observe how long the child will take to finish the sheet of letter pairs. We also record how many pairs he or she missed. Usually, children above grade 1 do not make any errors. But in the next task (see Appendix 2), there are letter pairs which have the same name (Nn, Tt, etc.), but they do

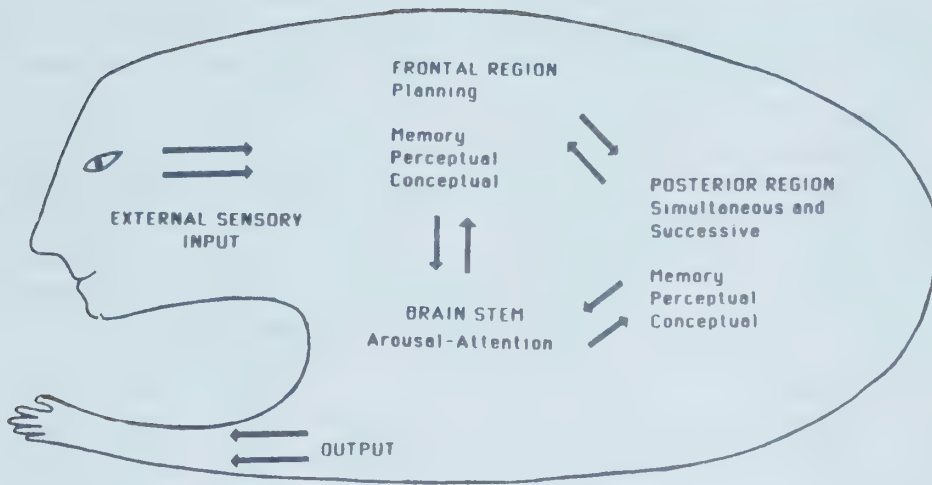


Figure 1: A Model for Information Integration

not look the same. We ask the child to cross out those pairs which have the *same name*. Children take longer to do this sheet and make more errors. Why does this happen? In crossing out letters of the same name, children have to process differently; they have to consult a dictionary of upper and lower case letters and their names. But this dictionary or lexicon is in their heads; they already have this knowledge. It just takes time to consult the lexicon, and it is a harder task than crossing out letters which look the same.

Are learning disabled children slower in both tasks, or only in the name-matching task? In a recent study we asked this question. The answer was a bit complicated. Learning disabled children who were only a little behind the class in reading, that is around one and a half or two years behind, were slower and missed more letter pairs than other children in the class in name-matching. They were as good as others in picking out identical letter pairs. Then we compared severely learning disabled children who were three or more years behind in reading. Many of them were true dyslexics. These children were slower even in the first task. They also appeared to be slower in encoding the identical letter pairs and recognizing them as the same. Note that in IQ, all three groups of children were average and did not differ. But in processing they did, and did so in a manner that made sense. We could not have such understanding of learning disability or dyslexia by giving the children a standard IQ test such as Binet's, because we could not have asked such interesting questions regarding their cognitive processing.

Our work with these special groups of individuals such as dyslexics will give us both a theoretical understanding of intellectual processes and a chance to apply the knowledge for ameliorating the disability. Not that one should automatically lead to the other, for understanding does not always result in cure or control. But there is the possibility. A neuropsychological view of intelligence is different from the existing psychometric tests of intelligence in trying to figure out how the mind works by anchoring its functions on the brain and by detecting dysfunctions. It does not seek to place people on a scale of merit, and therefore is not a tool for social selection. Although the elements of all cognitive processes must lie in biology, our mental functions have evolved in social cooperation. One of these obviously important functions is language, a uniquely cultural tool for thinking.

I conclude by saying that any attempt to predict the complex workings of the brain without due regard to the social and cultural conditions which not only provide a context, but also a reason, a necessity, for the brain to work, must be a mistake. But exactly that sort of mistake is being made by seeking one universal mental ability, for example, by giving reaction time tests for a trivial task such as *pressing a switch as soon as a particular light comes on*. Speed of reaction can be a universal characteristic of human beings, and such simple reaction times may be closely associated with a biological characteristic of the individual's nervous system. But this speed cannot be the *cause* of the differences in our various mental functions. Here I give an analogy. The biological elements which make up intelligent behaviors are like the alphabets.

**t i e w h l r l t e b h i t e m r e e b e i m e o l i w t l t p a f r a e c p e a t r
e o m t e h e e t f t a h c a e t s y m o e u e t**

They cannot accurately predict what words I, as an individual, may choose to make using those alphabets;

**be be time time will will there there meet meet to to face faces a pre-
pare you that**

and even when the words are given, how a poet may put these together creatively.

**There will be time, there will be time to prepare a face to meet the
faces that you meet.**

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Appendix 1

Rn	Ae	Ta	Ae	RR	Nr	RA	NN	Rr	Te
Et	TT	AT	EE	Ar	EE	ER	Et	RR	RN
RE	TA	AT	Er	RR	Ae	Rt	Tn	AN	Nt
An	NR	RR	AA	En	TR	Ea	Ar	EE	Er
At	Re	NR	RA	EE	En	ET	Rn	Ra	Tn
RT	AN	Tn	Rn	EN	Rt	Ne	En	Ea	NN
Tn	Ne	Na	Na	TA	AA	Rt	Tr	RT	RE
Nr	NT	TT	Et	RN	Rt	Te	RR	An	Te
RR	NR	Ea	NN	TT	Ar	Na	TT	EE	EA
At	En	NT	RR	Nt	Ae	EE	NN	TN	Nr
Rt	ER	Ta	An	NE	AE	TN	NE	Nr	RN
TT	Ne	AA	Re	EN	Tr	Re	EN	An	Nt
Rn	NA	NN	AA	RT	Tr	NN	Te	Nt	RR
Ra	Ea	Ar	AA	NN	Er	NN	Ta	Nt	Ne
An	ET	TN	Rt	Ra	AN	NE	TE	AA	RE
TT	EE	Tr	Ra	AE	AT	Ne	Tn	Ea	TE
AA	Et	AR	Er	Na	AA	At	Ta	Re	ET
NN	Ra	EE	EE	Ae	EA	NA	Ar	AA	TT
En	Te	RR	Et	Er	RR	EE	TR	TE	AA
At	TT	NN	Ae	Nr	Re	TT	Ta	Na	TT

Appendix 2

Ae	RN	Ne	Et	RT	Re	EA	Rr	Ar	Aa
Ra	Rt	NR	Tn	Rr	Tt	NR	Rn	At	Ta
TA	Rr	NA	Rt	Tr	Ta	AE	NT	Er	AN
Ee	Tt	Te	Aa	Ne	Aa	Tn	AN	Ee	AT
Nn	Rr	An	Tt	Ar	Nt	EN	Re	Ra	TR
Rt	Ee	RA	At	Te	Aa	Rt	Tt	Nt	Ea
Ee	AN	En	TR	Tt	NE	An	NE	An	Et
Aa	Et	RA	Nt	Rn	AT	TN	Aa	EN	RN
Tt	Re	Nn	Re	ER	Rn	Rr	Ra	Ea	Ae
Ra	NE	Tn	An	Re	Ne	Ae	Er	EN	RT
Nt	Nn	Ee	Et	ER	Rr	TA	Aa	Rt	Nn
At	AT	TE	Te	En	Ne	Ea	Tr	Ra	Tr
Aa	EA	Tn	En	An	Rr	Er	Er	Rn	Rt
NT	Te	TN	ET	Nn	Tr	TE	Aa	Ar	Ee
Rr	Ar	Rr	AE	Nr	Ar	Na	RN	Ae	Tt
Na	Ee	TE	Ee	En	AT	ET	Te	Nn	Na
Nr	Aa	ET	Nn	Ea	Tt	Na	Ae	AR	RE
NA	Tr	Ta	Tt	Re	Ee	Nr	En	NR	Nn
Na	Tt	Rn	RE	Ta	Ee	Et	TN	Ne	Aa
Nr	Er	Nt	Rr	RT	Ta	Nn	Nr	Tn	Ea

BOOK REVIEWS

CURRICULUM: PERSPECTIVE, PARADIGM, AND POSSIBILITY. *By William H. Schubert.* New York: Macmillan, 1986, 478 pp.

Typically, synoptic textbooks of curriculum are so general in nature that they become dull, ritualistic manuals. With Schubert's book this definitely is not the case. *Curriculum: Perspective, Paradigm, and Possibility* is a work that provides a synopsis of the field of curriculum in a form that raises important questions for students of the discipline. For example, the field is conceptualized in broad epistemological terms, and thus fundamental questions of knowledge creation are central to the book. The point is made that without addressing these basic questions curriculum becomes an educational area without direction. Therefore, the purpose of the book is to raise such questions and thereby provide perspectives of the field as well as convey the dynamic nature of curriculum knowledge. Schubert stresses that the book does not provide pat answers to set questions; instead it provides the reader with a deeper, broader perspective of curriculum.

The book is structured in three parts as indicated in the title. An interesting technique that is part of this structure is the use of three fictional critics who react to the topic of each chapter. The critics are labeled intellectual traditionalist, social behaviorist, and experientialist. They play an adversarial role where each advocates a philosophical position, thereby supporting a particular curricular perspective and implicitly denouncing alternative perspectives.

The social behaviorist perspective reflects an empirical-analytic view of the world in which control, certainty, and predictability are primary concerns. Schubert's account of this perspective rings true, particularly for teachers and administrators. To a lesser degree it is true for some theoreticians in university curriculum departments. At present this perspective dominates the theory and practice of curriculum in Canadian education.

Part I provides five chapters which deal with perspectives of curriculum so that the reader is informed of factors that have shaped and directed the development of curriculum studies. Schubert handles the historical developments, contextual factors, basic assumptions, and the influence of stakeholders on curriculum in such a way that he addresses criticisms raised by earlier curriculum researchers. He clearly illustrates multiple branches to the historical roots of curriculum and argues convincingly for the role of history in the field. He further illustrates curriculum as a study that is energetic, alive, and in a healthy state. The vibrant nature of the field is demonstrated by alternative perspectives which reflect a questioning attitude about society and curriculum. This section of the book is of value as it provides a comprehensive summary of historical and contextual elements that are necessary for the understanding of recent developments in the field. In particular, the roots of North American curriculum are traced to developments in Great Britain, continental Europe, the United States, and Canada. These roots are pertinent to curriculum throughout Canada because of the

strong influence that commercial curriculum materials from the United States have had, and in many provinces still do have, on schooling. The discussion provides insights for scholars and professionals by providing foundations from which curricula may be interpreted.

Part II provides seven chapters on the three frames of reference, or conceptual lenses, that are used to question curriculum. The three frames of reference (empirical-analytic science, hermeneutic science, critical science), proposed by Habermas (1971), are used in the Khunian sense of a paradigm to provide a conceptual framework through which curriculum is perceived, investigated, and considered. From my perspective this section is the highlight of the book as it provides a structure that I have found useful with students of curriculum. A structure of this nature allows students to conceptualize different aspects of the field and come to an understanding of the relationships between curriculum and those factors Schubert discussed in his perspectives section.

A detailed examination of Ralph Tyler's four questions of purpose, content, organization, and evaluation are used as examples of the empirical-analytic mode. Subsequent chapters examine curriculum from the hermeneutic and critical sciences modes by considering the field as practical inquiry and critical praxis, respectively. Schubert identifies the theoretical work done by Ted Aoki and Max van Manen at the University of Alberta as being central to the development of critical praxis, or emancipatory theorizing. This approach is clearly in the area of a critical science paradigm where the dominant epistemological perspective in curriculum is highlighted and its assumptions are questioned.

For the reader who does not know the hermeneutic and critical science paradigms as well as he or she knows the Tylerian approach, Schubert offers succinct descriptions of the two paradigms and then proceeds to discuss the essential points by presenting the assumptions on which they are based. The discussions focus on the structure, questions posed, plus the implicit views of the paradigms. In addition, a description is offered of the reconceptualist's role in questioning curriculum from a critical science perspective. An assessment is made that suggests that these individuals have made a special contribution to the field because of the cultural and historical milieu of both themselves and curriculum. This is noticeable in Canada with contributions by individuals such as Ted Aoki, Max van Manen, Dieter Misgeld, and others associated with them. Their contributions have been the examination of curriculum from phenomenological and critical science perspectives, thus contributing to a different view of pedagogy.

Part III provides three chapters that examine the possibilities for curriculum. This section gives a range of response to the issues, questions, and points of view that are raised in the previous chapters. Schubert identifies 22 instructional and 15 societal problems that are facing curriculum. All 37 problems exist in Canadian education because Schubert has chosen to discuss problems that are general to Western societies. The only difference between Schubert's problems and similar lists for Canadian education would be the priority attached to certain issues. For example, concerns associated with science and high technology would be given a higher priority in Canadian education because of the recent initiative in this area by the Science Council of Canada.

The list of societal problems is disappointing because Schubert does not discuss them in detail. Questions of indoctrination as well as of control and coercion are at the heart of the critical science perspective, and a discussion of problems such as these would have permitted Schubert to illustrate the strength of viewing curriculum from

various paradigms. Schubert concludes the book by discussing ideals and practices to resolve these difficulties.

With any synoptic textbook the scope of the content is vast. In Schubert's book this is also true though he treats the material in a fair and balanced way such that the reader is not bludgeoned with a bias. This is not to say that a bias is not present. In my view Schubert tends to support the hermeneutic and critical science interpretation of the field, but this is not done at the expense of the empirical-analytic view. Schubert's interpretation appears related to a cultural bias which is revealed in two questions posed in the autobiographical preface. The first question is "What does it mean to live a good and fulfilling life?" while the second question is "What kind and quality of knowledge and experience enables a person to live a good and fulfilling life?" (p. viii). These questions, plus Schubert's account of why they are important to education, suggest a culturally influenced perspective of curriculum. Rather than viewing Schubert's bias negatively, we may commend him for providing the reader with a basis for the interpretation of curriculum that is promoted in the book.

Schubert's stated intentions are to provide a view of the curriculum field and to do it in such a way that educators are capable of effectively handling curriculum problems. Consequently, an assessment of the book's value to scholars and professionals must ask the question: Are the intentions fulfilled? The book does provide a comprehensive view of the field; therefore, the first intention is fulfilled. This aspect of the book will be of value to teachers, administrators, and graduate students who are unfamiliar with alternative perspectives of curriculum. For researchers and theoreticians who are familiar with curriculum paradigms the book will be of little value because it is a recapitulation of existing views. It does not provide new views, nor does it provide new interpretations of old views. Schubert's attempt to fulfill the second intention is found wanting. His method of fulfilling this latter purpose is to include a possibilities section and to pose provocative questions throughout the book. It is doubtful that these techniques will help scholars or professionals handle curriculum problems. The strength of the book is in the presentation of curriculum from a paradigmatic view. Thus the book will be of value to educators who are unfamiliar with alternative curriculum perspectives but who require an introduction to the field.

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CLASSROOM ENVIRONMENT. *By B.J. Fraser.* Beckenham, Kent: Croom Helm, 1986, 226 pp.

Many new books in education are published each year. Some are texts; some are handbooks and guides; some are expositions of new theories; and still others are on specialized research topics which are concerned with the state-of-the-art review and synthesis and offer suggestions for future research and practice. This book belongs to the last category. However, it differs from other such books on specialized research topics in terms of scope, comprehensiveness, representativeness, detail, integration, and elaboration. After giving a brief summary of the book, this review offers a few comments on each of the differentiating characteristics of this work. However, because space is limited and I have a particular bias, these comments should be considered in conjunction with other reviews that might be published.

This book is the eighth in the Croom Helm Curriculum Policy and Research series edited by William A. Reid, University of Birmingham and Ian Westbury, University of Illinois. The Foreword by the editors reflects rather directly their philosophical and ideological orientation which is that curriculum consists not only of cognitive content and measurable outcomes but also of processes and the quality of life of students and teachers in their classrooms. Not many would argue with this sort of holistic position on curriculum and educational practice. But a debate ensues when one side argues that educational procedures and the quality of life in the classroom are means to cognitive achievements while the other side argues that procedures and classroom practices are ends in themselves. This book is neutral on this debate. It offers classroom environment measures as both independent and dependent variables as well as moderator variables of instructional treatment effects.

In seven chapters, the book covers the historical background of classroom environment measurement and research and contemporary research and practical issues. Specifically, in the first chapter, Introduction and Background, four perspectives which recur in other chapters are presented: (a) Approaches to the measurement of classroom environment in terms of perceptions of students and teachers are compared with direct observation of classroom procedures and practices and the relative advantages of perceptual assessment approaches to classroom environment; (b) Historical underpinnings of the contemporary conceptualization, measurement, and research of classroom environment; (c) The appropriateness of the distinction between school-level and classroom-level environment and approaches to the assessment of the school environment; and (d) The choice of the unit of analysis, among student, classroom, or school, in research work with various conceptual and statistical considerations.

The second chapter is intended to stimulate and advise researchers and practitioners on the use of classroom environment instruments. This objective is realized in this chapter by including comprehensive descriptive and validation statistics for five instruments of expected high use and applicability. Included for the high school level are the Learning Environment Inventory (LEI), the Classroom Environment Scale (CES), and the Individualized Classroom Environment Questionnaire (ICEQ); for the primary school level is the My Class Inventory (MCI); and for the college and university level is the College and University Classroom Environment Inventory (CUCEI). Also, descriptive and validation details are given on three short forms of the CES, ICEQ, and MCI. These short forms offer an attractive and practical alternative to measurement of classroom environments by fewer but more appropriate scales for research and practical uses. Besides these five scales in which Professor Fraser had a small or major interest in development, validation, and use in research, many other

instruments for measuring classroom environment are also discussed in this chapter.

A detailed and comprehensive discussion of associations between student outcomes and classroom environment scales is presented in two major parts of the third chapter. The first includes details of the design, analysis, and results of a correlational study by the author and his colleague. The second part, after providing an overview of the past outcome-environment association studies, gives reviews of research for the LEI, CES, ICEQ, MCI, and other instruments, under separate sections. The chapter concludes with a synthesis and the details of an extension of this research by Walberg, the originator of the LEI, into an educational productivity model.

In the fourth chapter, an overview of studies involving classroom environment measures as criterion variables is given. Presentation of this research begins with a tabulated list of studies under three organizing themes: curriculum evaluation studies, studies on differences between student and teacher perceptions of preferred and actual environment, and studies of classroom learning environment involving other independent variables. For each study the table identifies the classroom environment instrument and the independent variable under two separate headings. Then, under three separate sections, the tabulated studies are discussed briefly.

The material in chapter 5 is presented in two main parts. In the first previous research on person-environment fit (aptitude-treatment interaction) is reviewed and some common methodological flaws are pointed out. In the studies reviewed in this part, the environment measures used were generally either unidimensional or some single variable of interest to the researcher. In the second part details of a person-environment fit study, derived from two already published studies by the author and his collaborator, are given and it is assumed that regression surface analysis involving a single dependent variable would suffice in future research in overcoming the shortcomings of the previous research. However, the problem of confounding the multiple criterion variable set usually used in person-environment fit studies is not tackled by the regression surface analysis. We have to await the development of a methodological strategy to address the problem appropriately.

Chapter 6 addresses the applied problem of changing the classroom environment so that there is minimal discrepancy between the preferred and the actual environment of a classroom from both the teacher's and the student's perspectives. The author acknowledges that "surprisingly little has been done to help teachers assess and improve the environments of their classrooms" (p. 168). In order to encourage and facilitate applied work of this sort, this chapter provides a review of the related literature and then reports a couple of case studies where systematic strategies were used to change the perceived actual classroom environment so that the observed large discrepancy on the critical scales was reduced after the intervention period. Applied research is needed which can demonstrate both the effects of planned intervention on specific environment scales and the resultant side effects and transfer.

The last chapter entitled Conclusion is essentially a summary of the previous chapters and an extension in an effort to identify future avenues of research and applied work in the classroom environment. Although the scope of the book is classroom environment, it goes beyond that. It has included instruments and research pertaining to other milieus and contexts. This extension of the book is both logical and appropriate. Other environments and contexts offer parallel representations to the school and classroom contexts and much is to be gained, as demonstrated in this book, from going beyond the narrow domain of one's interest.

One could not help but be impressed by the comprehensiveness and representativeness of the coverage of the book. It presents the historical perspective

of the work on classroom environment to point out interesting distinctions between high and low inference measures of the classroom environment. The content of prior research on environments and related work is described in such a way that research workers in this area can use it profitably and save much time in library research. Hence this book is an important resource and offers interesting directions for future research and practical work. Details of a few of the author's own research and case studies provide methodological insights which might be of much use to novice researchers, and these instantiations of research could certainly be used by experienced researchers and teachers as examples for their students. However, there is one small ambiguity in the interpretation of regression results in chapter 3 when residuals of the outcome measure, after partialing out the ability and/or pretest differences, had been used as a dependent variable in the studies discussed in this chapter. This ought to be clarified. We cannot claim in such instances that classroom environment measures account for substantial or whatever amount of variance in the criterion above that accounted for by the pretest and/or ability measures. This can only be said in a stepwise regression situation. In the situation in point, we can only say that classroom environment measures accounted for such and such percent of variance in the residual dependent measure after the ability differences had been partialled out.

The book provides an excellent integration and elaboration of the research reviewed and discussed in it. Also, each chapter clearly outlines what it is about and then summarizes and extends in the concluding section of what has been discussed and what future work is needed to fill in the gaps. This, I am sure, is much appreciated by the readers. I am grateful for the excellent source that I have now available to me and I highly recommend this book to those who are interested in and are currently doing work in the area of environments in different milieus and contexts.

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For Contributors

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